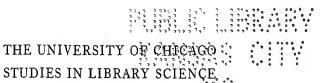


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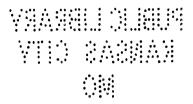


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#### THE GEOGRAPHY OF READING

A STUDY OF THE DISTRIBUTION
AND STATUS OF LIBRARIES
IN THE UNITED STATES



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# A STUDY OF THE DISTRIBUTION AND STATUS OF LIBRARIES IN THE UNITED STATES

\*

By LOUIS R. WILSON



AMERICAN LIBRARY ASSOCIATION

AND

THE UNIVERSITY OF CHICAGO PRESS

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To

MR. AND MRS. JOHN SPRUNT HILL

#### **PREFACE**

HE Geography of Reading presents the findings of an extensive survey of the distribution of libraries and library resources in the various states and regions of the nation. It also shows the relation of this distribution to that of bookstores and rental libraries, of magazines and newspapers, and to the status of other social institutions and media of communication of ideas such as the school, the moving picture theater, and the radio.

The publication has been made possible by a grant from the Carnegie Corporation of New York and the aid of the Illinois Emergency Relief Administration which made available a number of statistical assistants and an expert cartographer. Grateful acknowledgment is made to Dr. G. Flint Purdy and Dr. Ralph Ellsworth, who, as research assistants in the Graduate Library School, helped in developing the various tables, maps, and summaries, and assisted generally in the preparation of the manuscript. Without their assistance in locating sources of information, in selecting material for inclusion, and in checking tables and charts, the completion of the study could not have been possible. Acknowledgment of special indebtedness is also made to Dr. Howard W. Odum, of the University of North Carolina, for information derived from the work, Southern Regions of the United States, issued by the University of North Carolina Press; to Dr. Louis Wirth, Miss Elsbeth Lochner, and Miss Elizabeth Johns, of the University of Chicago, for the use of data prepared for a report of the Research Committee on Urbanism to the National Resources Committee; to Dr. Walter C. Eells, of Stanford University, for the preparation of data and the figures concerning centers of library population; to Mrs. Ellen S. Woodward, of the Federal Works Progress Administration, and Miss Hallie Warner and Miss Pearl Sneed, of the State Library Extension Divisions of Illinois and Mississippi, respectively, for information concerning library activities carried on by the Works Progress Administration; to the American Library Association, the Chicago Art Institute, Dr. O. H. Cheney, and others who have furnished data or permitted the use of materials provided by them. Finally, acknowledgment is made to Dr. Carleton B. Joeckel and Dr. Leon Carnovsky, of the Graduate Library School, who have read the manuscript, and to Mrs. M. A. Macdonald and Miss Gwladys Spencer, who have assisted in seeing it through the press.

Louis R. Wilson

University of Chicago October 1, 1937

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#### INTRODUCTION

O AMERICANS individually and collectively the great depression of the early 1930's was a stern schoolmaster. It set every thoughtful citizen to taking inventory of the institutions which society has provided for promoting the social good and to restudying them in order to increase their social significance. Criticism and modification of the school, of the college, and of the university have been well-nigh universal. Government, likewise, has been subjected at all levels to a scrutiny and reshaping such as it has probably never undergone before. Recent Social Trends in the United States, by the President's Research Committee on Social Trends; The Higher Learning in America, by Robert Maynard Hutchins; Administrative Management in the Government of the United States, by the President's Committee on Administrative Management; the present studies by the Regents of the University of the State of New York on the character and cost of public education, and of the President's Advisory Committee on Education on the relation of the federal government to education, all bear testimony to this universal checking and rechecking of agencies which serve society. The times have been decidedly out of joint, and people have sought to know why they have been so in order that similar periods of profound dislocation may be avoided and that the future social order may be more stable and satisfying.

The American public library, established midway in the nine-teenth century in response to an urgent social need, has been included in this general stocktaking. From 1929 through 1934 several million Americans who had not made use of its services previously turned to it for aid. Through it, they sought reorientation for new activities and inspiration for the future, or release from the pressing burdens of the hour. Other millions used it as they had in the past as one of America's basic instrumen-

talities for providing equalization of educational, cultural, and recreational opportunities in a democracy. Taxpayers sought to determine the value of its services to society in comparison with that of other public services; the American Library Association restated its general and specific objectives; and state library associations and individual libraries undertook to extend its service to larger numbers and to increase its effectiveness everywhere.

#### PURPOSE OF THE STUDY

The Geography of Reading has grown out of this general scrutiny of the public library as a distinctly American social institution which contributes to the conservation and extension of human resources. It is concerned primarily with the distribution of libraries in the United States and with problems associated with their use, support, and social significance. It is intended to answer, or to suggest the answers to the five questions: (1) What is the extent of inequality in access to libraries and library resources among the states and regions of the United States? (2) What relation does this inequality bear to variation in the distribution of social, educational, and cultural institutions and media for the communication of ideas in America? (3) Why does this disparity exist? (4) What is its significance? (5) What can be done to increase library resources where they are comparatively slight or do not exist at all.

Stated somewhat differently, the study is intended (I) to indicate by tables, maps, and regional summaries, the distribution of libraries; (2) to compare this distribution with that of other institutions, organizations, and media which may be thought of as bearing a more or less direct relationship to the status of library development; (3) to discover, if possible, the causes which have brought about inequalities in the distribution of libraries; (4) to consider the significance of the results growing out of the existing inequalities; and (5) to suggest means which may be employed to effect greater equalization of library resources throughout the nation. The subject matter

is presented in four parts. Parts I, II, and III are devoted to answering questions one to three. Part IV suggests answers to questions four and five and presents a series of conclusions and recommendations growing out of the study as a whole.

The publication is also intended to serve other, though less specific, purposes. On the basis of the information presented in the tables, maps, and summaries, librarians, educators, publishers, and others engaged in the general task of disseminating ideas through print may be able to view their individual activities more realistically and to plan their future development with increased prospect of success. It should also be possible for the student of library development to use the material, supplemented by data from local sources, in the preparation of other studies which deal more intimately with the library facilities of a specific region, state, county, or smaller library service area. The various tables concerning the forty-eight states, for example, can be used for this purpose. It will be a simple matter to determine the status of each state concerning any given particular, such as expenditure for public library purposes, by checking its standing against the average for the nation and against the individual states which rank highest and lowest, respectively; and relationships between the various indices of wealth, urbanization, educational status, etc., and that of library development may be determined statistically.

#### LIMITATIONS AND EXPLANATIONS

One important limitation of the study should be emphasized. It deals with the distribution of library facilities as they now exist. The history of the American public library movement, the causes which brought the library into being, the philosophy upon which it rests, its social significance as a public institution, the justification of its present and future support, however interesting and important, are dealt with only cursorily and are left for extensive treatment by others at another time.

The title, The Geography of Reading, calls for some explanation. A glance at the content of the volume will show that it is not a geography, although certain aspects of geography have unquestionably influenced the distribution of reading facilities. Neither is it concerned with many of the aspects of reading with which the public usually associates the term. It is concerned with the geographical or spatial distribution of libraries, bookstores, magazines, newspapers, etc.; and maps are extensively used to present graphically the data concerning this distribution. They are also employed in those chapters which are devoted to educational, economic, and other social factors which have influenced library development in the United States. In this way it is hoped that a better understanding may be reached concerning the status of the library as an institution devoted to the promotion of reading, which contributes to the formation of the cultural pattern of American life.

#### SOURCES OF DATA

Some comment should also be made concerning the sources from which the basic data have been secured and the methods used in reducing the materials to a basis on which they may be readily compared.

As will be seen from the tables and maps, the data have been drawn from a wide variety of sources. The task of preparing the volume has consequently been greatly increased, and its value has been somewhat lessened, because no single organization or office has recently been charged with the responsibility of collecting, on a nation-wide basis, information concerning all types of libraries. The American Library Association has prepared two nation-wide summaries for public libraries. These were published in 1926 and 1935, respectively. The U.S. Office of Education has published statistics of school, college, public, and other kinds of libraries at various intervals since 1870. But its latest compilation is for 1929, and is characterized, as are its predecessors, by incompleteness of returns, owing to the failure of many libraries to fill out the appropriate schedules. The data prepared by state library extension agencies, in those states in which such agencies exist, have been collected on various bases

and for that reason are generally not susceptible of satisfactory comparison. And because of the lack of funds, in recent years some of the annual summaries thus prepared have not been published. Now that the Library Service Division in the U.S. Office of Education has been established, and funds appropriated for its maintenance, a unified program of collection and publication of these important data seems assured. It should also be noted that many of the tables are based on data for different years. Later data could not be secured in many instances, and the majority of the tables were prepared in 1934 and 1935 when aid from federal sources was available.

#### METHODS OF PRESENTATION

In presenting the data in the study a more or less definite pattern has been followed. First, a table showing the status of each state in order of rank with respect to the data under consideration is shown. In general, the table presents the total for each state, the data per unit of population, and the standard score of each state.

Second, the per capita data are presented in map form. The status of each state is shown by shading. The states are divided into five groups, which are hereinafter referred to as intervals, according to their status with respect to the data under consideration. The states in the highest interval are shaded black, those in the second interval with cross-hatching, those in the third interval with diagonals, those in the fourth interval with dots, and those in the lowest interval are white. The various maps based on per capita data are only roughly comparable.

Third, the data are summarized by region in graphic form. For this purpose the six regions defined by Mr. Odum in his Southern Regions of the United States have been used. The boundaries of these regions and the states which compose them are shown in Figure 3 and Table 3. These regional groups have been arrived at on the bases of approximately seven hundred indices of population, wealth, occupation, education, natural resources, etc., against which each state was checked. The al-

location of several states to certain regions may appear somewhat unusual, as, for example, the placing of West Virginia in the Northeast rather than in the Southeast. But when checked against the entire list of indices, the state was found to have more characteristics common to the Northeast than to the Southeast with which it has frequently been associated. The use of this grouping rather than that of the U.S. Census Bureau has been employed because it reduces the number of regions from nine to six and seemingly makes somewhat sharper and more significant the comparisons among what are recognized as major regions. The grouping of New England with the Middle Atlantic states and West Virginia presents New England somewhat out of character, but it brings the longer settled industrial Northeast into one general region, as contrasted with the major regions in southern, middle, and western America.

Fourth, the distribution of data concerning libraries among the counties of a more or less typical state is likewise presented in tabular and map form in order to show differences in library development which are to be found in smaller political units. Data for the state of Illinois are used in this way.

The use of per capita data involves a certain amount of difficulty in interpretation. A statement to the effect that 60 per cent of the population of Minnesota reside in areas served by public libraries gives no clue to the fact that if three counties, Hennepin, Ransey, and St. Louis are excluded, only 31 per cent of the residents of the remaining eighty-four counties are served. Thus, it must be recognized that the figure for a state is a somewhat crude generalization.

The population of the entire state has, in general, been used as the basis of per capita<sup>1</sup> figures, rather than the population of only the areas served. It was desired that the figures be representative of the relative status of the various states as a whole, rather than of only the areas served in the several states.

<sup>&</sup>lt;sup>1</sup> The term, per capita, is here used loosely to indicate "per unit of population," that is, per capita, per hundred, per thousand, etc. In some cases some other base than population, for example, number of families, has been used.

The per capita data have been translated into standard scores in order to render the various tables comparable. While the rank of a given state on two tables would provide a roughly comparable figure, the standard score, since it is an abstract index number based upon the average and the variability of all forty-eight states, furnishes a much more accurately comparable figure. The standard score of a given state may be defined as the deviation of that state from the average of the forty-eight states, expressed in units of standard deviation. The standard deviation is a measure of the average variability of the forty-eight states, that is, of their average deviation from the mean.

On each United States table two average measures for the United States will be found, namely, the mean per capita figure for the United States as a whole and the mean for the forty-eight states. It will be noticed that the two are frequently quite different, which is reasonable in that they have different meanings. The former may be said to represent the status of the average citizen of the United States, the latter, the status of the average citizen of the average state. In the former, each citizen of New York bears equal weight with each citizen of Nevada in determining the average. In the latter, Nevada counts as heavily as New York, and consequently each citizen of Nevada is given a weight nearly 140 times as great as each citizen of New York.

Per capita figures have been based largely upon 1930 census data. Data for the late twenties, as well as for the early thirties, have been adjusted to 1930 population.

#### PATTERN OF LIBRARY DISTRIBUTION

In handling the extensive statistical material treated in the study, every effort has been made to utilize the best sources and to avoid error. To avoid repetition, bibliographic information contained in footnotes in the text has not been given in full in the footnotes to tabular matter, but a brief form of citation has been preferred. That some errors have been made, in spite of constant checking and rechecking, is almost inevitable. It is

also inevitable that in some instances different interpreters of the data will arrive at conclusions different from those reached by the author. It is hoped, however, that in spite of these limitations, the study may reveal clearly the variation which exists in the distribution, support, and use of libraries in the various states and regions of the United States, that it may show what causes have produced the variation, and that it may suggest ways and means by which the library, now so unevenly developed throughout the nation, may be enabled to contribute more effectively to the educational and cultural life of every part of America.

# PART I LIBRARY DEVELOPMENT

## CHAPTER I

## ACCESSIBILITY OF PUBLIC LIBRARIES

OW accessible are libraries and books to the American public? To answer this question is the purpose of Part I of the present survey. Information is presented in this division of the study concerning the distribution in the various states and regions of the United States of all libraries—school, college, university, public, special, and other types—together with a discussion of their use, support, and general accessibility to the public. Chapter i deals specifically with the public library.

This institution in America, free to the public, and supported wholly or in part by public funds, dates back more than a century. Though its history and the causes which brought it into being are not considered in this chapter, it is important to recall that the public library movement began to assume definite form in the 1850's; that it contributed to the founding of the American Library Association in 1876; that it experienced great expansion during the period 1890–1920; and that, today, the public library is recognized as a distinct contribution which America has made to library development throughout the world. The public library has assumed a fixed place in the pattern of American life; it is at once a symbol of democracy and an effective educational agency for its promotion.

#### POPULATION TO WHICH LIBRARY SERVICE IS ACCESSIBLE

The data which appear in this chapter concerning the present accessibility of public library service to different states and regions of the country as a whole are derived principally from the publications and files of the American Library Association and of the U.S. Office of Education. The former has issued two

compilations, Library Extension, in 1926<sup>1</sup> and "Public Library Statistics," in 1935;<sup>2</sup> and the latter, at various intervals since 1870, has issued statistics concerning many types of libraries, including public libraries.<sup>3</sup> The latest compilation is for 1929.

TABLE 1\*
Population Served by Public Libraries, 1926 and 1935

Year	TOTAL P POPULATION L			Population without Libraries		Population with Libraries	
	TOPOLATION	RIES	Number	Per Cent	Number	Per Cent	
1926	105,710,620 122,775,046	5,954 6,235	45,069,897 45,130,098	43 37	60,640,723 77,644,948	57 63	
Increase	17,064,426	281	60,201	-6	17,004,225	6	

<sup>\*</sup> Source: "Public Library Statistics," A. L. A., Bull., XXIX (1935), 253-55; A. L. A., Com on Lib. Ext., Library Extension (Chic. A. L. A., 1926), pp. 123, 127, U.S. Census, 1930, Population, I, 14.

From the various tables, maps, and regional summaries presented in this chapter, a number of important facts concerning

- <sup>1</sup> American Library Association, Committee on Library Extension, Library Extension: A Study of Public Library Conditions and Needs (Chicago: American Library Association, 1926).
- <sup>2</sup> "Public Library Statistics," American Library Association, Bulletin, XXIX (1935), 252-55, 443.
- <sup>3</sup> There have been thirteen special collections of statistics of libraries made between 1870 and 1929 by the U.S. Bureau of Education (since 1929, the U.S. Office of Education). The first of these appeared in the *Report* of the Commissioner of Education, and later ones have usually appeared under the title of *Statistics*. Their chronological order is as follows:
- (a) Report of the Commissioner of Education for the year 1870; 1872; 1875; 1884-85; 1886-87 (Washington: Government Printing Office, 1870; 1873; 1886; 1888); (b) Statistics of Public Libraries in the United States and Canada: 1891, by Weston Flint. Circular of Information No. 7, 1893 (Washington: Government Printing Office, 1893); (c) Report of the Commissioner of Education for the Year 1895-96; 1899-1900; 1903 (Washington: Government Printing Office, 1897; 1901; 1905); (d) Statistics of Public, Society, and School Libraries, 1908; 1915; 1923; 1929 (Washington: Government Printing Office, 1909; 1915; 1926; 1931).

The special compilations issued in 1876 (for 1875) and in 1905 (for 1903) included material other than that regularly appearing in the usual reports. The first of these, *Public Libraries in the United States of America* (Washington: Government Printing Office, 1876), is particularly notable.

TABLE 2\* PER CENT OF POPULATION OF EACH STATE RESIDING IN LOCAL Public Library Districts, 1934

C	7	Population with I	LIBRARY SERVICE	Standari
State	RANK	Total	Per Cent	Score
Delaware .	I	238,380	100 0	1 60
Massachusetts	ı	4,249,614	100.0	1 60
New Hampshire .	3	463,549	99.6	1 58
Connecticut	4	1,593,128	99.1	1.56
California	5	5,568,344	980	1.52
Rhode Island	6	662,545	96 0	I 44
Wyoming .	6	217,309	960	I 44
New Jersey	8	3,843,535	95.0	1.40
Vermont .	9	333,520	93.0	I 32
Ohio	9	6,178,808	93.0	1.32
New York	11	11,011,019	87.0	1.09
Maryland	. 12	1,298,923	80 0	0.82
Michigan	13	3,661,430	760	0.66
Illinois	14	5,688,440	750	0 62
Maine	15	589,361	74 0	0.58
Indiana	16	2,354,618	73 0	0.55
Oregon	17	669,610	70 0	0.43
Wisconsin	. 17	2,048,∞1	700	0.43
Nevada .	19	60,714	67 0	0.31
Utah.	19	340,596	67 0	0.31
Arizona .	. 21	279,451	64 0	0.20
Minnesota	22	1,536,982	600	0 04
Washington	23	928,743	59 0	0 00
Colorado	. 24	579,487	56.0	-o 12
Pennsylvania.	25	5,274,828	55 0	-0.15
Montana	26	273,922	51.0	-0.31
-Missouri	27	1,821,289	50.0	-o 35
Nebraska	27	684,132	50.0	-0 35
Iowa	29	1,178,668	48.0	-0 43
Kansas	. 30	884,812	47 0	-0 47
North Carolina .	31	1,425,416	45 0	-0 54
Tennessee .	32	1,086,397	42 0	-0 66
Florida	33	582,579	40.0	-0 74
South Carolina.	33	688,757	40 0	-0 74

group.

Totals are for the whole of the United States, including the District of Columbia, means, medians, standard scores, and standard deviations are usually based on the forty-eight states, not including the District of Columbia. The District of Columbia has been omitted in these instances because of its atypical nature, particularly with respect to library facilities in relation to population.

<sup>\*</sup>Source: "Public Library Statistics," A L. A, Bull, XXIX (1935), 252-53.

Mean per cent of population with service (based on per cents of the 48 states), 59.0; standard deviation, 25.72; U.S. total, 77,644,948; U.S. per cent of population (including District of Columbia), with service, 63.24.

Terms in this and subsequent tables may be defined as follows: (a) mean, the simple arithmetic average; (b) median, the midpoint of a series of measures ranked in the order of their magnitude, (c) standard score, an index number used to facilitate the comparison of measures on dissimilar scales, as per cent of population living in library service areas with the per capita wealth; (d) standard deviation, a measure of variability, the square root of the mean of the squares of the individual deviations from the arithmetic mean of the

TABLE 2-Continued

State	n	Population with I	Standard		
STATE	RANK	Total	Per Cent	Score	
Oklahoma	35	813,681	38 0		
Louisiana	35	803,292	38.0	<del>-</del> ,0 82	
Kentucky	37	977,477	37 0	-0 85	
Texas	38	2,035,719	35 0	-0.93	
New Mexico	39	140,847	33 0	-1 01	
Virginia	39	807,704	33 0	10.1-	
Idaho	4 I	139,597	32.0	-1 05	
Alabama	<b>4</b> I	855,510	32 0	-1 05	
South Dakota	43	211,865	31 0	-1 09	
Mississippi	43	632,428	31.0	-1 09	
Georgia	45	828,713	29 0	-1.17	
North Dakota	46	128,027	190	-I 55	
Arkansas	47	281,661	150	-1 7I	
West Virginia	48	204,651	12 0	-ı 83	

the distribution of public libraries in the United States begin to emerge. The first of these is that, of the 122,775,046 inhabitants of the United States, 77,644,948, or 63 per cent, lived in areas served by 6,235 public libraries in 1935. After a century of public library development, approximately three out of every five Americans live in areas in which free public library service is available; and, on the contrary, 45,130,098, or 37 per cent of the population, live in areas in which public library service is not available. Tables 1 and 2 and Figures 1, 2, 3, 4, and 5 show the details of this situation.

A second group of significant facts concerning the distribution of public library facilities comes into view if the analysis of the data is carried farther. These facts relate to differences in regard to accessibility which exist: (1) between states, (2) between regions, (3) between states within regions, (4) between counties within a state, and (5) within counties and individual cities.

Table 2 and Figures 1 and 2 reveal differences between states in the percentages of population which live within areas with

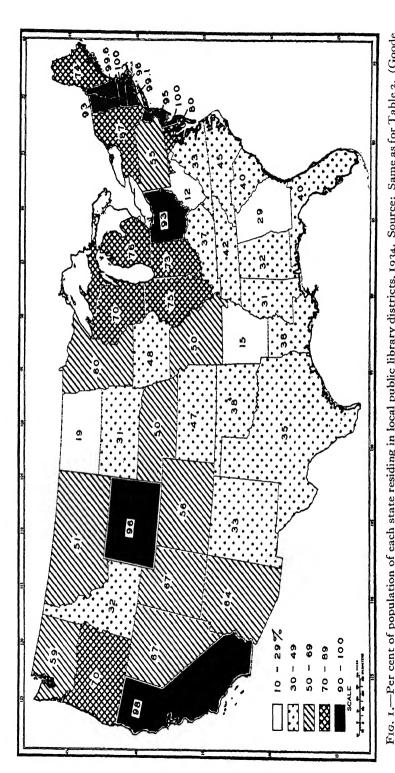


Fig. 1.—Per cent of population of each state residing in local public library districts, 1934. Source: Same as for Table 2. (Goode Base Map No. 110, published by the University of Chicago Press. Used by permission.)

public library service. The range is from a low 12 per cent in West Virginia to complete coverage, or 100 per cent, in Massachusetts and Delaware. For several decades Massachusetts has had the distinction of providing service for all its citizens through city and town libraries. Rhode Island was reported in 1926 to have shared this distinction, but in the summary for 1935 it is listed as having 4 per cent of its population living outside service areas. Delaware has taken its place by providing service for all the residents of its three counties through various public libraries at Wilmington, Dover, and other cities, through

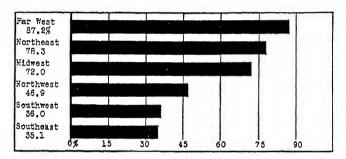


Fig. 2.—Regional summary of per cent of population of each state residing in local public library districts, 1934.

the New Castle County Library at Wilmington, and through the State Library Commission, which maintains service similar to county library service for residents of Kent and Sussex counties. As has already been shown, 63 per cent of the population of the United States live within service areas, though it must not be assumed that this 63 per cent of the people make actual use of libraries.

## VARIATION AMONG REGIONS

The range in variation among states, as has been shown above, is wide. Great heterogeneity is necessarily the rule in a country as large as this, and in the effort to measure variations among states, the state, itself, does not prove to be as exact a yardstick as is desired. For more accurate comparisons, or for comparisons among regions—which may be composed of

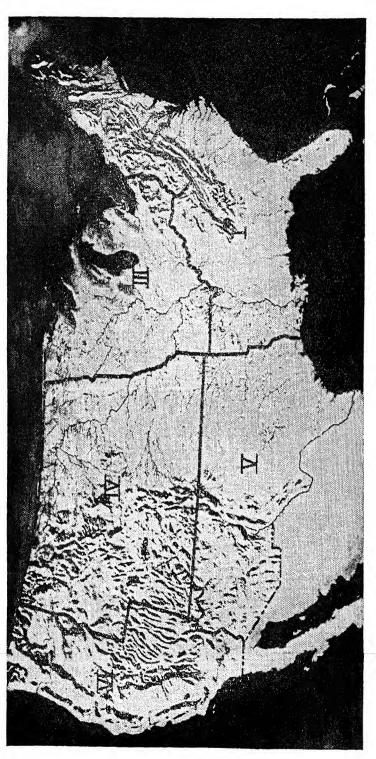


Fig. 3.—The six regions of the United States. Source: H. W. Odum, Southern Regions of the United States (Chapel Hill: University of North Carolina Press, 1936), p. 6.

states having considerable homogeneity among themselves—two additional yardsticks are used, the region and the county. The six regional divisions of the country, as developed by Mr. Odum in his study, Southern Regions of the United States, 4 provide an excellent means of graphically depicting, through regional summaries, the significant differences in library coverage. Figure 3 shows the outlines of these six regions.

The variations found in the per cent of population living in public library service areas are summarized in Figure 2, which thus manifests, by regions, the data which appear, by state, in Table 2. It shows, for example, that, in the region designated as the Far West, 87.2 per cent of the population reside in areas served by local public libraries; in the Northeast, 78.3 per cent of the population reside in public library areas, etc. In the eleven states comprising the Southeast, only 35.1 per cent of the total population live in areas with local public libraries of any kind. This very low percentage in a single region accounts in part, as is pointed out later in this chapter, for the lag which has occurred since 1926 between increase in population served and increase in population in the nation at large. But variation among the states which compose the Southeast is also found. The range is from 15 per cent in Arkansas to 45 per cent in North Carolina.

### VARIATIONS AMONG COUNTIES WITHIN STATES

If the analysis is carried farther to include counties within a state, as it has been in Figure 4 (Location of public libraries in Illinois) and Figure 5 (Per cent of population residing in public library districts, by county, in Illinois), further variations are seen. In Illinois, when the whole state is taken as the unit, approximately 75 per cent of the total population has

<sup>4</sup>H. W. Odum, Southern Regions of the United States (Chapel Hill: University of North Carolina Press, 1936), p. 6. These six regions into which the country is divided have been determined by the use of several hundred indices of population, wealth, educational status, etc., against which each state has been checked. The groupings have been obtained by placing within the different regions those states which showed a high degree of similarity and homogeneity upon the basis of the checkings.

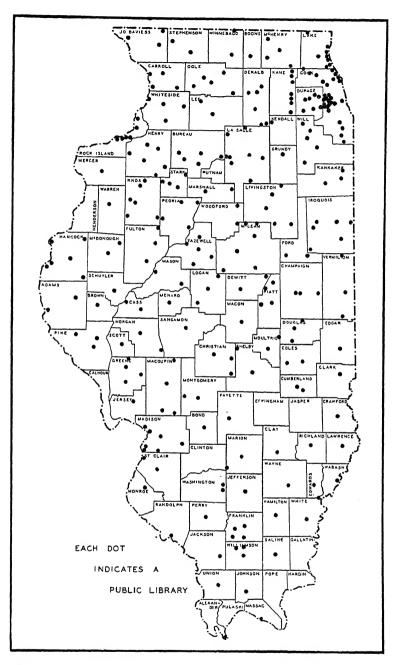
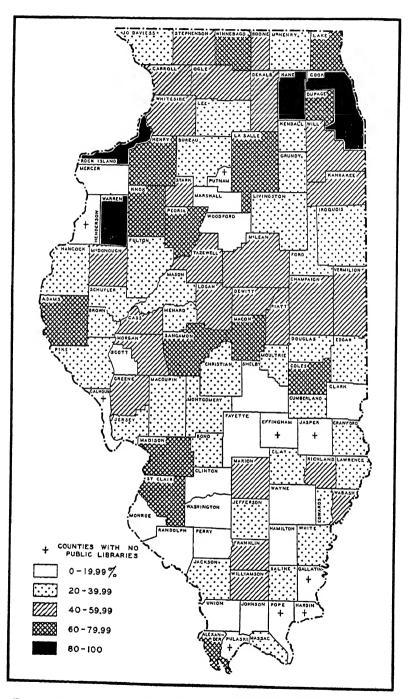


Fig. 4.—Location of public libraries in Illinois. Source: Compiled from Illinois State Library, Library Extension Division, Report for January 1, 1932 to December 31, 1933 (Springfield, State of Illinois, 1934), pp. 21-25.

In 1933 the 7,630,654 inhabitants of Illinois were served by 667 public and 10 en-

In 1933 the 7,630,654 inhabitants of Illinois were served by 667 public and 10 endowed libraries in 93 counties. The libraries contained 6,429,272 volumes, spent \$2,784,699 for library support, and circulated 31,444,867 volumes. Twenty-one per cent of the population were library registrants.



 $F_{1G}$ . 5.—Per cent of population residing in public library districts, by county, in Illinois, 1933. Source: Same as for Fig. 4.

TABLE 3\*
The Six Regions of the United States

Region	Population	Region	Population
I Southeast .	25,550,898	IV Northwest	7,384,497
Alabama Arkansas Florida . Georgia. Kentucky Louisiana Mississippi	2,646,248 1,854,482 1,468,211 2,908,506 2,614,589 2,101,593 2,009,821	Colorado Idaho Kansas. Montana Nebraska North Dakota South Dakota	1,035,791 445,032 1,880,999 537,606 1,377,963 680,845 692,849
North Carolina. South Carolina . Tennessee Virginia	3,170,276 1,738,765 2,616,556 2,421,851	Utah	507,847 225,565
II Northeast	38,026,202	V Southwest	9,079,645
Connecticut. Delaware Maine. Maryland Massachusetts New Hampshire New Jersey New York Pennsylvania Rhode Island Vermont West Virginia	1,606,903 238,380 797,423 1,631,526 4,249,614 465,293 4,041,334 12,588,066 9,631,350 687,497 359,611 1,729,205	Arizona New Mexico. Oklahoma Texas	435,573 423,317 2,396,040 5,824,715
III Midwest	33,961,444	VI Far West	8,285,491
Illinois Indiana. Iowa Michigan Minnesota Missouri. Ohio Wisconsin.	7,630,654 3,238,503 2,470,939 4,842,325 2,563,953 3,629,367 6,646,697 2,939,006	California Nevada Oregon Washington	5,677,251 91,058 953,786 1,563,396

<sup>\*</sup>Source H. W. Odum, Southern Regions of the United States (Chapel Hill: U. of N. C. Press, 1936), p. 6; U.S. Census, 1930, Population, I, 10.
U.S. total (48 states), 122,288,177, U.S. total (including District of Columbia), 122,775,046.

access to local public libraries. But if Cook County (containing Chicago) is excluded, the per cent of the population served in the other 101 counties drops to 50; and if nine Illinois counties (including Cook), each with a population of over 100,000, are excluded, the per cent of the population served in the remaining 93 counties drops even lower, to 43.2. In nine counties in which there are no public libraries, the per cent drops to zero. In only one county, Warren, is the entire population served by a county library.

## VARIATION WITHIN COUNTIES

Figure 6 (Map of Westchester County, New York)<sup>5</sup> illustrates the same principle of variation when the analysis is carried into different communities within a county. Although Westchester County contains thirty-one public libraries, approximately 58,000 of its 520,947 inhabitants live in areas unserved by any of them. In this respect, Westchester follows a pattern of library development which has generally prevailed throughout the country. Cities, trade centers, and county seats have tended to establish libraries and they have limited their services, except upon payment of special fees, to residents within the boundaries thus incorporated. The city, rather than the county, has been the unit in providing library service; although in Massachusetts the town has been the unit, and in California, Indiana, New Jersey, Wyoming, and to a less degree in other states, service has been provided on a county-wide basis. In all of these instances the service is provided through a central library and branches, subbranches, and stations, distributed in such way within the political unit as to reach advantageously the greatest number of patrons. The total number of such agencies for 493 cities, which reported to the American Library Association in 1935, ranged from an average of 2.9 for cities of

<sup>&</sup>lt;sup>5</sup> E. A. Wight and Leon Carnovsky, *Library Service in a Suburban Area* (Chicago: American Library Association, 1936), p. 38.

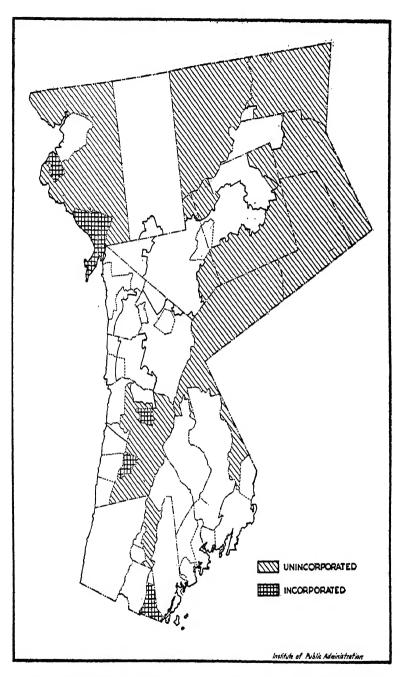


Fig. 6.—Map of Westchester County, New York, showing areas which contribute no public funds to public libraries. (Unshaded areas contribute to library support.) Source: E. A. Wight and Leon Carnovsky, *Library Service in a Suburban Area* (Chicago: American Library Association, 1936), p. 38. (Used through courtesy of American Library Association.)

from 2,500 to 5,000 population, to 252.7 for cities of 500,000 and over.6

Mr. Joeckel, in considering both the variation in distribution of public library facilities and the general character of service on a county basis, concludes that service is provided on a 10:50:40 ratio. He finds that approximately 10 per cent (metropolitan or near-metropolitan) of the counties in the United States have what the American public has come to con-

TABLE 4\*
Distribution of Library Service in the United States
(A Tabulation by Counties)

Counties			Libra	RY SERVICE	
Туре	Number		y Complete ervice	Partial Service	No Libraries
Metropolitan districts Urban-rural—over 25,000 Urban-rural—under 25,000 Rural—over 10,000 Rural—under 10,000	175 799 690 743 667	77 108 50 19	(45)† (84) (44) (15) (41)	96 552 461 273 176	2 139 179 451 446
Total	3,074	299	(229)	1,558	1,217

<sup>\*</sup> Source. C. B. Joeckel, "Realities of Regionalism," L R. Wilson, ed., Library Trends (Chic. U. of C. Press, 1937), p. 70.

sider as approximately complete library service; 50 per cent (largely urban) have some service, ranging from very incomplete to fairly complete; and 40 per cent, or two counties out of five (largely rural), have no service through public libraries. Table 4 gives the number of counties and number of libraries in the different categories, and it furnishes additional evidence of the variability of library accessibility. Variation in accessibility is also to be noted in cities—depending upon the degree

<sup>†</sup> Figures in parentheses show number of county libraries with incomes of over \$1,000.

<sup>&</sup>lt;sup>6</sup> U.S. National Resources Committee, Research Committee on Urbanism, "A Survey on Recreation" (MS in preparation).

<sup>&</sup>lt;sup>7</sup>C. B. Joeckel, "Realities of Regionalism," L. R. Wilson, ed., *Library Trends* (Chicago: University of Chicago Press, 1937), p. 70.

to which branches and stations are available. The limiting effect of distance on circulation has long been recognized, and libraries have constantly striven to overcome it by multiplying easily accessible outlets.

# LAG BETWEEN INCREASE IN POPULATION AND LIBRARY ACCESSIBILITY

The preceding discussion has been devoted to the consideration of the variation in accessibility of library service for the nation as a whole, down through individual regions, states, counties, and cities. It has dealt with variations in library coverage.

A further very important aspect of this general discussion may now be presented. The extension of public library service between 1926 and 1935 did not keep pace with the increase in population for the same period. The total population increased from 105,710,620 in 1920 to 122,775,046 in 1930. The number of people living in library service areas increased from 60,640,723 (57 per cent of the total population in 1926) to 77,644,948 (63 per cent of the total population in 1935). While this was a gain of 17,004,225 people in areas with libraries, it failed by 60,201 to equal the increase in total population. The number of persons living in unserved areas was consequently increased by this amount. The lag was not great, but it was nonetheless a lag in so far as the two sets of figures are comparable. Table 5 shows the increases, or decreases, by states, in total population and in population without library service.

Twenty-four states, distributed throughout the entire country, contributed to the lag by adding to the number of citizens for whom no service was provided. Twenty-three states tended to cancel the addition by providing service in excess of increases in population, and one state maintained its status unchanged by reason of the fact that all of its population lived within service areas in 1926 and 1935. Several contrasts, however, in the differences between states are so striking that they may be mentioned. Pennsylvania added 911,333 to its popula-

TABLE 5\*

Increase or Decrease in Total Population, 1920–30; Number of People without Library Service, and Per Cent of Increase or Decrease in People without Service, 1926–35

State	Increase or in Popu:	Decrease LATION	Increase or Decr	ease of Popula- Brary Service
	Number	Per Cent	Number	Per Cent
Alabama	298,074	12 7	84,552	- 4
Arizona .	101,411	3º 3	-81,548	$-35^{\circ}$
Arkansas	102,278	5 8	77,750	0
California .	2,250,390	65 7	- 8,028	- r
Colorado	96,162	10 2	10,351	<b>-</b> 3
Connecticut .	226,272	16 4	-18,129	<b>–</b> 1
Delaware	15,377	6 9	-91,801	-41
Florida	499,741	51 6	335,632	4
Georgia	12,674	04	47,492	ĭ
Idaho	13,166	3 0	4,326	7
Illinois	1,145,374	17 7	-87,762	<b>–</b> 6
Indiana	308,113	10.5	-12,937	- 3
Iowa	66,918	28	-207,729	-10
Kansas	111,742	6 з	-60,491	<del>-</del> 6
Kentucky	197,959	8 2	25,536	<b>-</b> 3
Louisiana .	303,084	16 9	63,452	<b>–</b> 6
Maine	29,409	3.8	73,062	9
Maryland	181,865	12 5	-191,373	- 16
Massachusetts .	397,258	10 3	(total coverage)	0
Michigan	1,173,913	32 0	84,062	- 5
Minnesota	176,828	7 4	-53,574	- 5
Mississippi	219,203	12 2	-104,523	-14
Missouri	225,312	6 6	-78,788	- 5
Montana	-11,283	-2.1	-15,614	- 2
Nebraska	81,591	6 з	-15,024	- 4
Nevada	13,651	17 6	-19,628	-3I
New Hampshire .	22,210	5.0	-2,951	- 0
New Jersey	885,434	28.1	-128,201	- 5
New Mexico .	62,967	17 5	18,644	- 6
New York	2,202,839	21.2	327,047	2
North Carolina .	611,153	23.9	-56,745	-13
North Dakota	33,973	5 3	32,273	ĭ
Ohio	887,303	15 4	-1,328,160	-24
Oklahoma	367,757	18.1	41,887	-13
Oregon	170,397	21 8	24,610	- 3
Pennsylvania	911,333	10.5	856,522	4
Rhode Island .	83,100	13.7	24,952	4
South Carolina.	55,041	3 3	-278,505	— 1 Š
South Dakota.	56,302	8.8	80,269	<b>—</b> 3
Tennessee	278,671	11 9	-162,698	-14
Texas	1,161,487	24 9	471,209	- <u>.</u>
Utah	58,451	13.0	19,360	ĭ
Vermont	7,183	2.0	6,452	2
Virginia	112,664	4 9	-54,920	<b>-</b> 5
Washington	206,775	15.2	56,034	- ĭ
West Virginia	265,504	18 1	344,485	8
Wisconsin	306,939	11 7	36,977	- 2
Wyoming	31,163	16.3	-5,606	<b>-</b> 3

<sup>\*</sup>Source "Public Library Statistics," A L A., Bull., XXIX (1935), 254-55, A. L. A, Com. on Lib. Ext., op. cs, pp. 122-23, 126-27.

tion and 856,522 to those without service. The increase of those without service was due, in part, to the fact that Pennsylvania contains 23 cities with more than 10,000 population and one with over 25,000 without public library service.8 New York increased its population 2,202,839, and its unserved population 327,027. But California, on account of its almost complete coverage through municipal and county libraries, was able to absorb an increase of 2,250,390 in population and at the same time reduce the number in unserved areas by 8,028. Ohio not only absorbed a population increase of 887,303, but by extending service to rural areas—potential service, probably, rather than actual in all instances—reduced the number of those without service by 1,328,160. This was accomplished by the passage of legislation requiring a public library to extend its privileges to all residents of the county in which it is located. One of the most notable contrasts is that between three states in the Northeast and three in the Southeast. Maine, Vermont, and Rhode Island, though far outranking Virginia, North Carolina, and South Carolina in number of volumes per capita in public libraries, showed slight increases in the number of inhabitants not served, whereas the three southeastern states showed fairly extensive decreases. The number of inhabitants without library service was actually increased in twenty-four states, although the per cent of inhabitants without such service was increased in only eleven instances. In two others, Arkansas and Massachusetts, the per cents remained unchanged, while in thirty-five, the per cents exhibited an actual decrease.

In the main, however, it might be said that the total increase in population served by libraries from 1926 to 1935 (17,004,225) is only slightly greater than the total increase in urban population from 1920 to 1930 (14,650,220). In the same period rural population increased only 2,414,206. The growth in the number of people with library service, therefore, has been largely determined by the political unit which the library usually serves,

<sup>&</sup>lt;sup>8</sup> American Library Association, *The Equal Chance* (Chicago: American Library Association, 1936), p. 11.

TABLE 6\*
Per Cent of Rural Population of Each State Residing
in Local Public Library Districts, 1934

State	Rank	Total Rural Population	Rural Popula Servi	Standard Score	
			Number	Per Cent	
D 1					
Delaware	I	115,234	115,234	100.00	2 06
Massachusetts .	I	418,188	418,188	100 00	2 06
New Hampshire	3	192,214	190,470	99 09	2 04
Connecticut.	4	475,133	461,358	97.10	I.97
Wyoming	5 6	155,468	147,212	94.69	I 90
California.	_	1,516,655	1,407,748	92.82	1.84
Vermont	7	240,845	214,754	89.17	I 72
Ohio,	8	2,139,326	1,721,055	80.45	I 44
New Jersey	9	,702,090	557,079	79 35	1.41
Maryland	10	656,657	370,254	56 38	0.68
Maine	10	475,917	267,855	56 38	0 68
Rhode Island	12	52,068	27,116	52.08	0 54
New York	13	2,066,114	1,020,724	49 40	0.46
Nevada	14	56,594	27,467	48.53	0.43
Arizona	15	285,717	133,623	46.77	0.38
Indiana	16	1,442,611	578,215	40 08	0.16
Oregon	17	464,040	180,641	38 93	0 13
Wisconsin	18	1,385,163	499,536	36.06	0.04
Utah	19	241,583	74,332	30.77	-o 13
North Carolina	20	2,360,429	714,446	30.27	-0.15
Montana	21	356,570	95,689	26.84	<u> </u>
Mississippi	22	1,670,971	419,922	25.13	-0.31
South Carolina	23	1,367,685	340,407	24 89	-0 32
Minnesota .	24	1,306,337	312,331	23.91	-o 35
Michigan	25	1,540,250	359,355	23.33	<b>−</b> 0 37
Nebraska	26	891,856	200,221	22 45	-0 40
Pennsylvania	27	3,097,839	685,305	22.12	-0.41
Tennessee	28	1,720,018	288,879	16.80	-o 57
Kentucky	29	1,815,563	295,926	16.30	-0.59
Alabama	30	1,901,975	292,362	15 37	-0.62
South Dakota	31	561,942	80,958	14.41	-0 65
Kansas	32	1,151,165	163,731	14.22	-o 66
Iowa	33	1,491,647	206,307	13 83	<b>-</b> 0 67
New Mexico	34	316,501	42,058	13.29	-0.69
Louisiana	35	1,268,061	155,785	12.29	-o 72
Colorado	36	515,909	59,605	11 55	-0 74
Idaho	37	315,525	33,322	10 56	<del>-</del> 0 77
Georgia	38	2,013,014	174,556	8.67	-0 83
Virginia	39	1,636,314	124,962	7.64	-0 87
Texas	40	3,435,367	245,117	7.14	-o.88
Washington	41	678,857	44,204	6.51	-0 90
North Dakota	42	567,539	22,894	4 03	-0.98
Missouri	43	1,770,248	70,730	4.00	-0 98
Oklahoma	44	1,574,359	51,684	3.28	-1 00
Illinois	45	1,994,927	60,828	3.05	TO.1-
Florida	46	708,433	21,399	3.02	-1.01
Arkansas	47	1,471,604	43,035	2.92	-1.02
West Virginia	48	1,237,701	5,777	0.47	-1.09
	1	1		1	

<sup>\*</sup> Source· "Public Library Statistics," A. L. A., Bull., XXIX (1935), 252-55; rural population from U.S. Census, 1939, Population, I, 15.

Mean per cent (based on per cents of the 48 states), 34.92; standard deviation, 31.52; U.S. total, 14,024,656; U.S. per cent, 11.42.

namely, the city. The slight extension of county library service during the period, and the changes effected by legislation in Ohio, largely account for such differences as have occurred.

# ACCESSIBILITY TO URBAN AND RURAL POPULATIONS

A third type of variation in the accessibility of library service is that which exists between urban and rural populations. Since 1880 the United States has rapidly changed from a rural to an urban nation. In that year only 14,000,000 people, or 29 per cent of the total population, lived in cities. In 1930, 69,000,000 or 56.2 per cent, lived in cities, with 54,753,645, or 44.5 per cent, living in 96 metropolitan districts. Table 6 and Figures 7 and 8 present information concerning the accessibility of library service to rural populations. Here, again, there are wide differences in accessibility. Massachusetts and Delaware provide service for their entire populations, both urban and rural. Arkansas, with only 2.92 per cent of its rural population living in service areas, stands at the opposite extreme. The mean for the forty-eight states is 34.92 per cent.

Between 1926 and 1933 the number of cities of 5,000, or more, population not having library service increased—largely through normal population growth—from 179 to 233. Of the more than 4,000,000 inhabitants of Pennsylvania living in areas unserved by libraries, approximately 2,000,000 were in places having populations of 2,500, or more. Not only was there an increase in the number of cities of 5,000 population, or more, without service, but the total number of urban population without libraries increased from 2,917,597 to 5,456,881, a gain of from 5.4 to 7.9 per cent. At the same time, rural population without service dropped from 42,151,291 to 39,673,273, or from 82 to 73.7 per cent. Table 7 shows this latter change by regions.

The preceding data, however, do not reveal as clearly as they should the salient facts with which they deal. It is important to observe that of the 45,130,098 people in the United States who are without public library service, 39,673,217, or approximately 88 per cent, live in the open country, or in towns of

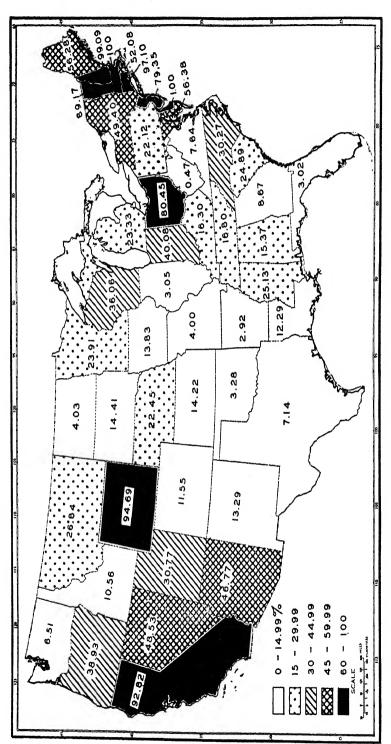


Fig. 7.—Per cent of rural population of each state residing in local public library districts, 1934. Source: Same as for Table 6. (Goode Base Map No. 110, published by the University of Chicago Press. Used by permission.)

less than 2,500 population. This number, as just stated, constitutes 73.7 per cent of the total rural population. Only 5,456,881, or 12 per cent, live in urban areas, and this number is but 7.9 per cent of the total urban population. Here, then, is Amer-

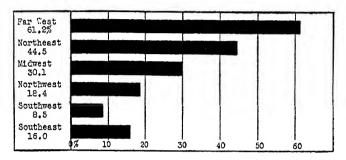


Fig. 8.—Regional summary of per cent of rural population of each state residing in local public library districts, 1934.

TABLE 7\*

Per Cent of Rural Population Residing in Areas Served by Public Libraries, by Region, 1926 and 1935

Region	1926	1935	Increase
Northeast	35 9	44 5	8.6
Midwest	17 0	30 1	13.1
Southeast	8.8	16 0	7 2
Southwest†	90	8.5	-o.5
Northwest	16 6	18 4	1.8
Far West	54 0	61 2	7.2

<sup>\*</sup> Source· "Public Library Statistics," A L. A., Bull, XXIX (1935), 252-53; A. L. A., Com. on Lib. Ext., op. cit., pp. 112-23, 126-27.

ica's greatest library problem, the problem of providing effective public library service for the one-third of the total population who live on farms and in the small towns and villages of rural America. And, like the problems of the rural school, the rural church, the rural community, its solution will require the combined effort of all organizations and individuals interested in the enrichment of rural community life. The librarian, the minister, the teacher, the political scientist, the rural sociologist,

<sup>†</sup> Oklahoma omitted from Southwest because of inaccurate data.

the land-grant college, the farm paper, the department of agriculture, these, and others, will have to work jointly in their common solution.

The county library, which was developed in the early 1900's as a means for promoting library extension to unserved rural areas, has seemingly made little progress in the last decade. Of the 3,000 odd counties in the United States, only 230 had established such libraries (spending \$1,000, or more, annually) in 1935;9 and the movement which had proved so successful in providing service in rural areas in California from 1910 to 1930, and in England from 1920 to 1935, 10 seems to have lost, temporarily, much of its force." The depression may have been a modifying factor. Relatively small populations, limited assessed valuations, and other causes have also affected the situation. At present, librarians are hopeful that the regional library, which may include two or more counties, or a trade area with larger populations and taxable resources, may prove a more efficient type for this purpose. Its successful development, it is hoped, may achieve the double objective of wiping out the discrepancy between the increase in the total population and that in the population served, and of providing a more effective means of accessibility in rural areas.

# LIBRARY SERVICE ACCESSIBLE TO NEGROES

Service to Negroes in the Southeast and Southwest presents another type of variation in accessibility. Table 8 contains data concerning this situation. In 1926, in ten southeastern and two southwestern states which generally require separate schools and other institutions for the two races, 866,910 Negroes, or 10.46 per cent of a total population of 8,291,698, received li-

<sup>9</sup> Joeckel, op. cit., p. 68.

<sup>&</sup>lt;sup>10</sup> Great Britain, Board of Education, Public Libraries Committee, Report on Public Libraries in England and Wales, 1935 (London: H. M. Stationery Office, 1935).

<sup>&</sup>lt;sup>21</sup> A number of county libraries which were begun recently under federal emergency auspices have been taken over by county authorities and are being supported on the usual basis. Their support so far has been very limited, and records concerning them have not been made generally available.

brary service from forty-five public libraries; without service, there were 7,424,788, or 89.54 per cent. In 1935, 1,592,727, or 18.44 per cent of 8,633,437, were within the service area of seventy-five libraries. There had been an increase of 725,817

TABLE 8\*
Public Library Service to Negroes, 1935

State	Negro Population	Negroes with Service		Total Libraries	Libraries in State	
		Total Number	Per Cent	IN STATE	Serving Negroes	
Alabama	944,834	106,890	11 31	18	2	
Arkansas	478,463	19,698	4 12	19	I	
Florida	431,828	84,374	19 54	44	4	
Georgia	1,071,125	162,843	15.20	53	5	
Kentucky	226,040	90,531	40 05	64	14	
Louisiana	776,326	169,941	21 89	16	3	
Mississippi	1,009,718	47,210	4 68	22	2	
North Carolina	918,647	134,422	14 63	64	11	
South Carolina	793,681	122,117	15 39	53	4	
Tennessee	477,646	225,201	47.15	34	5	
Texas	854,964	289,582	33 87	58	16	
Virginia .	650,165	139,918	21.52	46	8	
Total, 1935.	8,633,437	1,592,727	18.44	491	75	
	Comparison with Service, 1926					
Total, 1926 .	8,291,698	866,910	10 46		45	
Increase	341,739	725,817	8.00		30	

<sup>\*</sup>Source. U.S. Census, 1930, Population, II, 35; A. L. A. Com. on Lib. Ext., op. cit., p. 154; T. D. Barker, Libraries of the South (Chic: A. L. A., 1936), pp. 50-57; and headquarters office of A. L. A.

in the number served, but this was somewhat offset by an increase of 341,739 in population, which left a total population of 7,040,710, or 81.56 per cent, without service. If data differentiating service to urban and rural Negroes were available, the per cents for the two groups would show still further variation, as provision of libraries for Negroes in rural areas is even more limited than the very inadequate service for Negroes in

cities.<sup>12</sup> Actually, the per cents of the population shown as being served by libraries in the Southeast and Southwest should be considered to be lower than they are represented, because service is provided to Negroes in only 75 of the 491 communities which are listed as library service districts.

# SERVICE THROUGH OTHER TYPES OF LIBRARIES

Although the public library has been the principal agency through which free library service has been made available to the public, other types of libraries have also provided such service. This has been true of some private, association, or subscription libraries, and particularly of university extension divisions and state library agencies. In recent years the federal government has included library service in its emergency programs.

Historically, the association, society, or subscription library, which was open to its members and sometimes to the general public, antedated the public library as a social institution. It is the kind of library which Franklin founded in the Colonial period. In many instances the libraries of this character later became altogether free public libraries: in other instances, they have remained private, or have become free for reference, or free to the public for every kind of service. In the Northeast such libraries were relatively well developed before the western parts of the country were settled, and a comparatively large number are still in service. These libraries have not been extensively established in the newer parts of the country because a more democratic type of institution seemed more nearly to be in keeping with the western point of view. In the older Southeast they were relatively numerous, though their holdings were comparatively limited. The public library was late in developing in this region, and the existence of private libraries of this type which did not provide service for Negroes has probably been a causal and retarding factor.

<sup>&</sup>lt;sup>12</sup> L. R. Wilson and E. A. Wight, *County Library Service in the South* (Chicago: University of Chicago Press, 1935), pp. 211-12.

### BOOKS FOR THE BLIND

The furnishing of books for the blind is another important form of library service usually supplied by the public library. For a number of years the federal government has shared in maintaining and extending this special service. The development of the talking book has recently modified the nature of the service somewhat by substituting books reproduced by means of records and phonographs; but the public library has continued to be the center through which distribution is made. The federal government aids by making an appropriation for general expense; by transporting books and records through the mails, post-free; by allotting grants to libraries that assume responsibility for maintaining the service in designated areas; and by exercising through the Library of Congress a general advisory oversight of the entire system.

The location of the libraries which act as the distributing centers for this service is shown in Figure 9. They are widely scattered and have been placed where they can be used most effectively.

## LIBRARY SERVICE THROUGH STATE AND FEDERAL AGENCIES

Forty-four states have some form of state agency for the promotion of library extension. The state library, the library commission, or the division of libraries in the state department of education are the most common forms. They are supported by means of regular legislative appropriations and frequently have extensive stocks of books from which they can supplement the resources of local libraries. The California state library maintains a union catalog of its own holdings, as well as those of many of the public and county libraries of the state, in order to facilitate easy interlibrary loans among all the co-operating institutions. Similar service is provided by the state library agency in New Jersey and is being planned for in Ohio. Through these agencies a certain kind of public library service is made available to the residents of the whole state, even though it

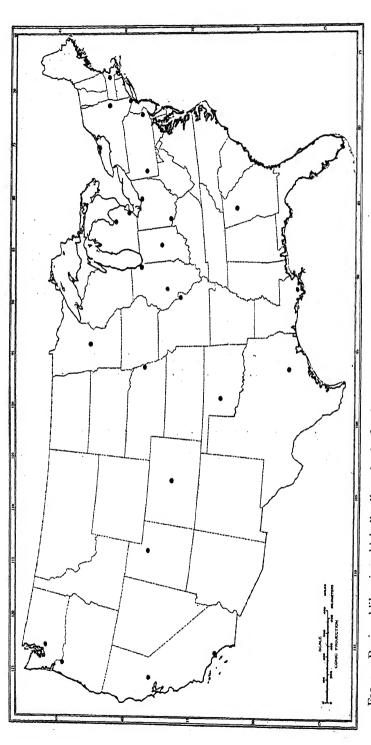


Fig. 9.—Regional libraries which distribute books for the blind, 1935. Source: U.S. Congress, House of Representatives, Committee on the Library, *Hearing on H. R. 168*, 75th Cong., 18t Sess. (Washington: Government Printing Office, 1937), pp. 55-56. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

cannot be considered on a basis entirely comparable with public or county library service. It is usually of three kinds: (1) books are loaned by the state agency to local libraries, and through them to individuals; (2) traveling libraries of several hundred volumes are loaned to communities without libraries for periods of three months, or more, to be circulated very much as books from a public library; or, (3) books are sent directly from the agency to an individual by parcel post or by bookmobile. In some states a similar service is provided by the state university, or agricultural extension division, where either has been widely developed. These services are intended to stimulate the development of public libraries in communities without them, or to aid individuals in carrying out special studies. In Delaware the state agency assumes direct responsibility for the provision of what may well be considered the equivalent of county library service, through the operation of book trucks in a given area, or stations which serve the surrounding territory. The public library coverage, in all of these instances, is relatively limited. The books available for these purposes numbered 3,443,903 in 1926, and the total circulation was estimated at 1,497,395.13

Since 1933 the federal government has demonstrated an extensive interest in the field of cultural activities in general, and it has assumed responsibility for the development of several kinds of public library service which have considerably increased the accessibility of books, particularly in rural areas. The principal reason for such activity has been to provide work relief. The effect, however, has been to extend service where it did not exist and to provide certain technical and physical services which were of value to libraries.

This service has been carried on under several governmental agencies, has taken a variety of forms, and has involved a considerable number of workers. The agencies which have been principally involved have been the Civilian Conservation Corps camps, the National Youth Administration, and the Works

<sup>&</sup>lt;sup>13</sup> American Library Association, Committee on Library Extension, op. cit., p. 132.

Progress Administration with its various predecessors, such as the Civil Works Administration and the Federal Emergency Relief Administration.

The library service of the Civilian Conservation Corps camps has been limited primarily to supplying books to the several hundred thousand young men who have been enrolled in them for varying periods since their establishment. The National Youth Administration has assigned many of those involved in that organization to library projects. One of the most notable of these has been the provision of service to rural areas in New York State under the direction of the library extension division of its state board of education.<sup>14</sup>

The Works Progress Administration and its predecessors have carried on three types of activity. They have contributed to: (1) the erection and repair of buildings, (2) the carrying out of a wide variety of library projects, and (3) the repair and binding of school and library books. Up to February 15, 1937, a total of 551 libraries had been, or were being, aided by new construction or repair through this agency. This program of assistance has included grants for the smallest of libraries up to the major systems, such as those of Boston, Brooklyn, and New York. They have been widely distributed and have contributed to the maintenance and extension of service that otherwise would have suffered or would have been impossible. 15

Assistance to schools and libraries in repairing and mending books during the half-month ending February 28, 1937, involved 7,928 persons in 804 projects in forty-four states, the District of Columbia, and New York City. The total earnings for the period were \$206,936, which went to 751 men and 7,177 women. From the beginning of projects of this nature, through February, 1937, 15,089 schools were assisted in forty states; 8,863,610 schoolbooks were repaired in thirty-eight states; and 1,856,564 schoolbooks were rebound in twenty-nine states. At

<sup>&</sup>lt;sup>14</sup> M. F. Mason, "Partial Report on Rural Library Service, March 12-June 15, 1936," New York Libraries, XV (1936), 107-10.

<sup>&</sup>lt;sup>15</sup> U.S. Works Progress Administration, Information Service, "Libraries and Museums of Nation Benefit in Works Program" (Typewritten; Washington, 1937).

the same time, 1,682 libraries had been aided in thirty-nine states; 8,140,491 library books had been repaired in thirty-six states; and 989,790 library books had been rebound in thirty-two states.<sup>16</sup>

Even more extensive than these services, however, has been the assistance which has been given to libraries under the general term, "library extension." This has included every type of library activity. Some of the most notable examples are the development of union catalogs at Philadelphia, Cleveland, and Denver, and the provision of library service to rural and unserved areas on a state-wide basis, as in Mississippi. In the latter instance, \$292,688 has been made available by the W.P.A. for one year, beginning November 1, 1936, to furnish service employing 590 women through six districts.<sup>17</sup> During the last two weeks of February, 1937, 14,212 persons earning \$454,053 for the period were employed on 964 projects in forty-eight states, the District of Columbia, and New York City. Usually books for the extension service have been provided locally. In some instances, small sums have been given by the W.P.A., as in Mississippi, where \$5,000 was allocated for this purpose. Since the beginning of the program, through February, 1937, 2,502 new libraries have been started in thirty states; 1,987 traveling units have been put into operation in twenty-two states; 2,674,473 additional books have been made available to the public in twenty-nine states; and service has been extended to an additional 2,115,984 persons formerly without access to library materials.18

<sup>&</sup>lt;sup>16</sup> U.S. Works Progress Administration. Table 1-b, "Employment, Hours and Earnings on W.P.A. Book Binding and Repair Projects by Relief Status, by Sex, and by States. Half-Month Ending February 28, 1937 (Subject to Revision)"; Table 2-a, "Book Binding and Repair Project Accomplishments (From the Opening of the Projects under W.P.A. through February 28, 1937)." (Typewritten.)

<sup>&</sup>lt;sup>17</sup> Correspondence with Miss Pearl Sneed, Secretary, Mississippi State Library Commission, Jackson, Miss., February 15, 1937.

<sup>&</sup>lt;sup>18</sup> U.S. Works Progress Administration. Table 1-a, "Employment, Hours and Earnings on Works Progress Administration Library Projects by Sex and by States. Half-Month Ending February 28, 1937 (Subject to Revision)"; Table 2-b, "Library Extension Project Accomplishments (From the Opening of the Projects under W.P.A. through February 28, 1937)." (Typewritten.)

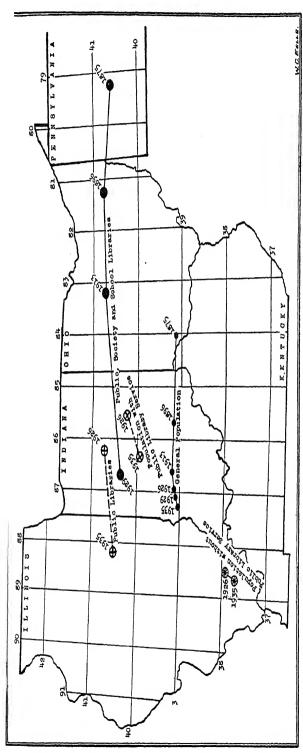
In the majority of instances, the service has been organized and directed in co-operation with the regularly constituted state library agencies or the local library authorities. In the case of state-wide activities, the plans of operation have, however, differed rather sharply from the usual pattern, in that there has been a marked tendency to divide states into well-defined library districts, with supervisors in charge of a number of counties. The supervisors have been drawn, in the main, from the ranks of trained librarians, whereas the local workers have been untrained and have been drawn from the relief rolls.

## CENTER OF LIBRARY POPULATION

Since 1874, Americans have been familiar with the idea of the center of population of the United States. This point was plotted for the first time in that year, and since then it has been plotted for each census, and also for censuses as far back as 1790.19 The procedure has been extended in recent years to include centers of special populations such as foreign-born, urban, rural, and even to special occupations, such as agriculture and mining. The extension of this procedure to library populations is illustrated in Figure 10.20 The center for the general population in 1935 is located in southwestern Indiana. The centers for the population with public library service in 1926 and 1935 are distinctly north and east of the corresponding centers for the general population. They are located in central Indiana. The center with public library service in 1935, however, has moved westward and southward, during the nine-year interval, toward the center of general population. This is a healthy tendency. The center of population without public library service, however, is located in southern Illinois, owing to the fact that the per cents of the populations of the Southeast and

<sup>&</sup>lt;sup>29</sup> Cf. W. C. Eells, "The Center of Population of Higher Educational Libraries in the United States, 1870–1930," *Library Quarterly*, VI (1936), 175–81.

<sup>&</sup>lt;sup>20</sup> The figure has been prepared by Dr. W. C. Eells, of Stanford University, who has computed centers for other special populations, such as those of higher educational institutions and college libraries.



Fib. 10.—Center of library population. Source: Five sets of computations made by Dr. W. C. Eells, of Stanford University, of centers of population. These computations were based upon information obtained from the federal census reports for the years 1875-1935; U.S. Office of Education reports, 1875-1929; American Library Association statistics as given in their Library Extension for 1926, and in their Bulletin for April and July, Vol. XXIX, 1935. Cf. footnotes 1-3, chap. i. Reading from top to bottom, the map shows the results of the five computations, as follows:

population of public, society, and school libraries of 1,000 volumes, or more, 1875, 1896, 1913, and 1929, referred to as "all libraries," population being the number of volumes; (3) center of population with public library service, 1926 and 1935; (4) center of general population, 1875, 1896, 1913, 1926, 1929, and 1935; (5) center of population without public library service (1) Center of population of public libraries, 1926 and 1935, "population" being the number of volumes; (2) center of for 1926 and 1935. Southwest without public library service are greater than those of the other four regions.

The other centers indicated in Figure 10 are those of the populations of public libraries for 1926 and 1935, and of all libraries (that is, "public, society, and school libraries of 1,000 volumes, or more"), for 1875, 1896, 1913, and 1929. In these instances, "population" does not mean people, but number of volumes or books. These centers of actual books are definitely to the north and east of the general population centers, and their movement toward the west has been comparatively much more rapid than that of the general population centers. But the center for public, society, and school libraries is south of the centers for public libraries for 1926 and 1935. Unfortunately, data for the former are not available for 1935; it seems probable, however, that if such data could be procured, the center would lie in eastern Illinois, south of that for public libraries.

As has already been shown in other ways, library coverage, seen in the additional light of the centers of library populations, is not so much a problem of the Northeast as it is of the other five regions. Within the boundaries of the Northeast are many concentrations of 500,000, or more, volumes. They are to be found in Boston, Providence, New Haven, New York, Philadelphia, and other northeastern areas, and they determine in large measure the location of the centers of library population. But here again, as throughout the entire chapter, the rule of inequality of accessibility holds true. Over against the concentration of 12,500,000 volumes in the combined public libraries of the city and state of New York are the 1,577,047 citizens of the state without access to public libraries. And in Pennsylvania the 4,982,000 volumes in public libraries are matched by 4,356,522 individuals who have no access to them.

### SUMMARY

In concluding this chapter, it should be repeated that it has dealt primarily with the problem of accessibility of public li-

braries to the population. It has stressed the idea of service areas, or coverage. This, it has shown, varies from 12 per cent to 100 per cent in the forty-eight states, and from 0 to 100 per cent among the counties of Illinois, except for occasional loans from state agencies, school libraries, and public libraries which provide service to nonresidents for special fees. The questions of service, or use, as differentiated from coverage, are reserved for later consideration, but it is necessary that the distinction be made here. Free public libraries may exist, and do exist, within the reach of many people who have a legal right to use them, but who do not, or cannot, take advantage of the opportunity. While this is true, the most challenging facts developed within the chapter are that 37 persons out of every 100 in the United States live in areas in which they do not have this opportunity; that 88 per cent of the 45,000,000 without public library service live in rural areas; that approximately 8,000,000 of them are Negroes living in the Southeast and Southwest; and, that approximately 22,500,000, or one-half of the total without public library service, are to be found in the Southeast and Southwest, although these regions contain but approximately one-third of the population of the nation.

## CHAPTER II

# LIBRARY RESOURCES

HE accessibility of public library service to residents of different states and regions of the United States has been discussed in chapter i. In chapter ii consideration is given to the resources of public libraries in 1934 and of all libraries (including public libraries) in 1929, as these are revealed by the number of volumes per capita which the residents of different states and regions have at their disposal. The nature of the service furnished, as recorded by number of borrowers and circulation, will be given attention in a later chapter.

### VOLUMES IN PUBLIC LIBRARIES

The total number of volumes in the 6,235 public libraries in the United States, at the beginning of 1935, was 100,470,215.<sup>x</sup> One-eighth of this total, approximately, or 12,705,090 volumes, was contained in the state of New York in 555 public libraries, while the 36 libraries of New Mexico contained only 137,346. The range of volumes per capita, which is indicated in Table 9 and Figures 11 and 12, is from 3.57 in New Hampshire to 0.10 in Arkansas and Mississippi. The average for the United States for the period 1926–35 increased from 0.62 to 0.89.

In presenting this table and map, several interpretations are necessary. First of all, the unit of measure employed is that of volumes per capita for the entire population of a state. The nature of the quality of the volumes is not indicated. On a state-wide per capita basis it is clear that the resident of New Hampshire has thirty-five books at his disposal to every one that the resident of Arkansas or Mississippi has. This is true

<sup>&</sup>lt;sup>1</sup> "Public Library Statistics," American Library Association, Bulletin, XXIX(1935), 253.

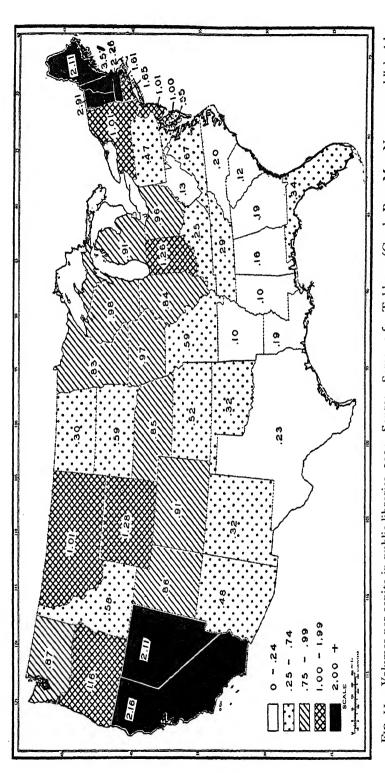


Fig. 11.—Volumes per capita in public libraries, 1934. Source: Same as for Table 9. (Goode Base Map No. 110, published by the University of Chicago Press. Used by permission.)

when the total number of volumes contained in all the public libraries of the states are divided equally among the entire population—a kind of division which it has been shown in chapter i does not exist in any states except Massachusetts and Delaware. By excluding the population not served, data showing holdings per capita for the areas served have been computed in the table. This aids in indicating general variation, though the ranking of the states and general comparisons are for the most part made throughout the study on the basis of total populations.

In the second place, it is also quite probable that differences in number of volumes per capita in public libraries do not al-

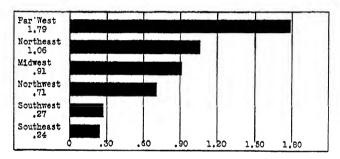


Fig. 12.—Regional summary of volumes per capita in public libraries, 1934

ways represent relative accessibility of library books. If New York and New Hampshire are contrasted on this basis, it appears from Figure 11 that each resident of the state of New York has at his disposal in public libraries only one book to every three and a half books at the disposal of the resident of New Hampshire. Yet one would scarcely conclude that the accessibility of library books to the resident of New Hampshire is three and one-half times greater than the accessibility of library books to the New Yorker. Fifty-five per cent of the inhabitants of New York State live in the city of New York, and in few parts of the world are library books of all sorts more readily accessible than there. Consequently, it is altogether probable that in no part of New Hampshire may library books covering a wide range of subjects be considered to be as accessible as they are to over half of the population of the state of New

York. A greater per cent of the population of the rural sections of New Hampshire is supplied with library books than are the populations of corresponding areas of New York; but the comparison stops at that point, as per capita holdings have not been computed for rural populations.

If the examination of Figure 11 is carried farther, it is found that New York ranks lower in volumes per capita in public libraries than Oregon, Colorado, or Maine, and about the same as Montana, Iowa, and Wisconsin. As has been stated, the figure presents volumes per capita in public libraries on a state-wide basis. Any attempt to make it mean relative accessibility of library resources is, therefore, fraught with difficulty. Probably Figure 1 in chapter i (Per cent of population of each state residing in local public library districts, 1934) more accurately indicates relative accessibility. Consideration of Figures 1 and 11 together reveals a high degree of similarity.

The two maps, if compared as to shading from white to black, will be seen to form a somewhat similar pattern. Half of the forty-eight states are in the corresponding shading, or interval, on the two maps, while twenty-two are within one interval of the same, and only two states vary as much as two intervals. By intervals is meant the five quantitative groupings indicated by different degrees of shading used in each map. This comparison is a very rough one, since the intervals are only crudely comparable on the two maps. It probably tends to minimize the degree of similarity. Reference to Tables 9 (Volumes per capita in public libraries, 1934) and 2 (Per cent of population of each state residing in local public library districts, 1934) reveals that of the ten states ranking highest in per capita volumes in public libraries, seven are numbered among the first ten in per cent of population living in library service areas. Conversely, of the ten lowest ranking states with respect to holdings, five rank in the lowest ten with respect to population served, and nine rank in the lowest fifteen. For example, New Hampshire, Massachusetts, and California stand well at the

TABLE 9\*
Volumes per Capita in Public Libraries, 1934

		Volu	jmes per Capi	ГА	C
State	Rank	Total Volumes	Total Population	Population Served	Standard Score
New Hampshire .	I	1,660,734	3 57	3 58	3 57
Vermont .	2	1,046,853	2.91	3 14	2 69
Massachusetts	3	9,610,046	2 26	2 26	I 82
California	4	12,235,626	2 16	2 20	1 69
Nevada	5	192,151	2 11	3.16	1 62
Maine	5	1,680,277	2 11	2 85	1 62
Connecticut	7	2,658,183	165	1.67	1 01
Rhode Island	8	1,104,238	161	1.67	0 96
Wyoming	9	289,078	1 28	1.33	0 52
Indiana	10	4,072,587	I 26	1.73	0.49
Oregon	11	1,102,105	1 16	1.65	0.27
New Jersey	12	4,092,009	1.01	1.06	0.16
Montana	12	545,017	I OI	1.99	0.16
New York	12	12,705,090	1.01	I 15	0.16
Delaware	15	238,040	1.00	1.00	0.15
Wisconsin	16	2,870,806	0 98	1.40	0.12
Iowa	17	2,388,349	0 97	2.03	0.11
Ohio	18	6,383,708	0 96	1.03	0 07
Colorado .	19	940,688	0 91	1.62	0.03
Michigan	19	4,428,404	0 91	I 2I	0.03
Washington .	21	1,346,665	0.87	I 45	-0 03
Utah	22	436,959	0.86	I 28	-0.04
Nebraska	23	1,168,344	0.85	1.71	-0.04
Illinois	23 24	6,429,272	0 84	1.13	-0 03 -0 07
Minnesota		2,081,601	0.83		-0 o8
T7:	25 26	1,625,315	0.63	1.35 2 OI	-0.29
Virginia	27	409,676	0 59	1.93	-0.29 -0.40
Missouri		1			
Idaho	27	2,141,864	0 59	1.17	-0 40
Maryland	29	258,511 892,231	0.58	1 85 0.69	-0 4I
Kansas	30	962,855	0.55	_	-0.45
Arizona	31	1	0 52	I 09	-0.49
Pennsylvania	32	211,068	0 48	0.76 0 85	-o 55
Florida	33	4,493,138	0 47		-o 56
Oklahoma	34	505,199	0.34	0 87	-0.73
New Mexico	35	764,279	0 32	0.94	-o.76
North Dakota	35	137,346	0 32	0 98	-o 76
Tennessee	37	205,740	0 30	1 61	-0.79
	38	763,677	0.29	0 70	-0.80
Kentucky	39	650,011	0.25	o 66	-0 85
North Carolina	40	1,353,929	0 23	0.67	-0.88
Louisiana	41	623,360	0.20	0 44	-0 92
	42	401,757	0 19	0 50	-0.93
Georgia	42	566,259	0.19	0 68	-o 93
	44	427,984	0 16	0 50	-o 97
West Virginia	45	227,726	0 13	III	-I OI
	46	304,756	0.12	0 44	-I O2
Arkansas	47	179,054	0 10	0 64	-I O5
Mississippi	47	201,326	0.10	0.32	-1.05

\* Source. "Public Library Statistics," A. L. A., Bull, XXIX (1935), 252-53.

Mean volumes per capita total population (based on means of the 48 states), 0.89; mean volumes per capita population served (based on means of the 48 states), 1.29; standard deviation, 0.75; U.S. total, 100,470,215, U.S. volumes per capita total population (including District of Columbia), 0.82.

Rank and standard scores are based on per capita total population rather than on population served.

top of both rank orders, whereas Arkansas, Georgia, and West Virginia occupy a correspondingly low position in both.

Since the number of volumes per capita for a given state are shown, but not compared with the per cent of population served, and since the comparative *rank* of a given state in the two tables affords only a crude basis for comparison, the status of each state with respect to the subject matter of each table has been translated into an abstract index number or standard score.<sup>2</sup> This has been done in order that differences shown in the tables,

TABLE 10\*

Public Library Holdings per Capita, by Region
1926 and 1935
(Standard Scores)

	Standard Score	
1926	1935	Increase
0.91	1 06	0 15
0.66	0 91	0.25
0.14	0 24	0.10
0.15	0 27	0.12
0 47	0 71	0.24
1.37	I 79	0.42
	0.91 0.66 0.14 0.15 0.47	1926 1935  0.91 1 06 0.66 0 91 0.14 0 24 0.15 0 27 0 47 0 71

<sup>\*</sup> Source: "Public Library Statistics," A. L. A., Bull., XXIX (1935), 252-53; A. L. A., Com. on Lib. Ext., Library Extension (Chic. A. L. A., 1926), pp. 122-23; U.S. Census, 1920, Population, I, 20; U.S Census, 1930, Population, I, 10-11.

and by means of the figures, may be placed on a comparable basis and may be consequently more susceptible of correct interpretation.

Table 10 shows the increase in per capita holdings from 1926 to 1935.

#### PER CAPITA HOLDINGS WITHIN A STATE

The situation described in the preceding pages is duplicated in the distribution of per capita holdings as illustrated in Table II (Volumes per capita in Illinois public libraries). Only in Warren County is the entire population served through a coun-

<sup>&</sup>lt;sup>2</sup> See footnote to Table 2.

**TABLE 11\*** Volumes per Capita in Illinois Public Libraries DECEMBER 31, 1933

County	Rank	Volumes	County	Rank	Volum
Warren	I	2 18	Kankakee	48	0 71
Knox	2	2 01	Fulton	49	0 66
Piatt	3	1 91	Jersey	50	0 65
Stark	4	1.88	Pike	51	0 64
Henry	5	1 79	Shelby	51	0 64
Hancock	Ğ	1 64	Christian	53	0 63
Kane	7	1 63	Moultrie	54	0 62
Stephenson	8	1 61	Wabash	55	0 61
Peoria	9	1 50	Edgar	56	0 60
De Kalb	10	I 46	Coles	57	0 59
Alexander	II	I 39	St. Clair	58	0 57
Ogle	12	1.32	Brown	59	0 55
De Witt	13	1.28	Crawford	59	0 55
Lake	13 14	1.25	Scott	61	0 54
Logan	14	1.25	Cook	62	0 53
Champaign	16	I 22	Grundy	62	0 53
o Daviess	17	1.19	Union	62	0 53
	18	1 18	Edwards	65	0 52
Morgan	19	I 15	Madison	65	0 52
Ford.	20	I 12	Lawrence	6 <del>7</del>	0 48
roquois	21	I II	Massac	67	
. •	21	1 11	Richland	69	0 48
Sangamon		1.10	Mercer	-	0 45
	23			70	0 44
Carroll Kendall	24	I 07	Montgomery	70	0 44
- I	25 26	I.04	Schuyler	72	0 43
McDonough		I.03	Bond	73	0 41
La Salle	27 28	1 00		74	0 39
Whiteside	-		Cass	75	0 36
Willieside	29	100	White	76	0 34
Greene	30	0.88	Hamilton	77	0 29
McLean	30	0.88	Jefferson	77	0 29
Livingston	32	0.87	Williamson	79	0 28
Marshall	32	0.87	Fayette	80	0 27
McHenry	34	0.86	Macoupin	81	0 25
Vermilion	34	0.86	Clay	82	0 23
Ou Page	36	0 84	Clark	83	0 21
Adams	37	0.83	Jackson	83	0 21
Cumberland	38	0 82	Saline	83	0 21
Bureau	39	0 81	Wayne	83	0 21
Douglas	39	18 0	Monroe	87	0 17
Macon	39	0 81	Franklin	88	0 16
Tazewell	39	0 81	Randolph	89	0 15
Mason	43	0 77	Johnson	90	0 08
Lee	44	0 75	Perry	90	0 08
Will	45	0 74	Washington	92	0 06
Woodford	45	0 74	Clinton	93	0.02
Menard	47	0 72			

\*Source Computed from Ill. State Lib., Lib. Ext. Div, Report for January 1, 1932 to December 31, 1933 (Springfield: State of Ill, 1934), pp. 27-51
Illinois mean (based on the 93 counties), 0.78, Illinois median, 0.72; Illinois standard deviation, 0.507.
Counties with no public libraries: Calhoun, Effingham, Gallatin, Hardin, Henderson, Jasper, Pope, Pulaski, Putnam.

ty library. Its holdings are thus adjusted to the number of people served. In all the other counties the holdings are also based on the total population, although the libraries in them serve only the residents in the cities or townships in which the libraries are located. Presented in this form, the fact is hidden that approximately 2,000,000 people in 101 counties of the state have no volumes per capita at all, whereas the actual per capita holdings of those in library service areas is considerably higher than the table indicates.

TABLE 12\*

Volumes per Capita in Public Libraries Serving City
Populations from 200,000, or More, to 10,000, 1935

Population	Cities	High	Median	Low	A.L.A. Standard
200,000 and over	43	2 223	0 921	0.361	1.500
	41	1.982	1 105	0.404	2.000
	43	3 241	1 580	0 455	2.000
	38	6 058	1 777	0 891	2.000

<sup>\*</sup>Source "Public Library Statistics," A. L. A., Bull, XXX (1936), 258-59, 262, 268, 273; "Standards for Public Libraries," A. L. A., Bull, XXX (1936), 514.

#### PER CAPITA HOLDINGS WITHIN CITIES AND COUNTIES

Further evidence of variation is revealed if an analysis is made of per capita holdings by cities and counties. Table 12 shows the variation within cities arranged according to size. Cleveland, with 2.223 volumes per capita, heads the list of 43 cities with 200,000 population, or more. Four others exceed the American Library Association standard of one and one-half volumes. In the group of 41 cities between 100,000 and 199,999, Peoria, Illinois, with 1.982 almost equals the standard of two volumes. In the group of 43 cities between 35,000 and 99,999, Brookline, Massachusetts, leads with 3.241, and in the group of 38 cities between 10,000 and 34,999, Bangor, Maine, leads with 6.058, or more than three times the standard. For cities less than 10,000, the standard is three volumes per capita.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> "Standards for Public Libraries," American Library Association, Bulletin, XXVII (1933), 513-14.

Information of like character concerning counties is given in Table 13. Four types of county libraries are recognized: (1) under county control, serving all, or most, of the county; (2) under county control, omitting county seat and possibly other sections; (3) controlled and financed jointly by headquarters, city and county; and (4) library service by contract with a municipal, or other local library. The counties ranking highest in each of the four groups were Madera County, California (group 1), Tehama County, California (group 2), Cass County,

TABLE 13\*
Volumes per Capita in County Libraries, 1934-35

County Libraries	Counties	High	Median	Low
Group I: Serving all or most of county	27	6 07	1.84	0 30
Group II:  Omitting service to county seat, and possibly other sections	25	5.78	1.47	0 40
Serving headquarters, city, and county  Group IV:	7	2 27	0 70	0 39
County served through contract	23	4.63	1.∞	0 08

<sup>\*</sup> Source "Public Library Statistics," A. L A., Bull, XXX (1936), 115-21.

Indiana (group 3), and Wasco County, Oregon (group 4). The holdings of California libraries are generally above those of the other regions, and those of southeastern and southwestern libraries are generally lower.

## VOLUMES IN SCHOOL, PUBLIC, AND SOCIETY LIBRARIES

Thus far in this chapter only the volumes found in public libraries have been considered. Table 14 presents data for all libraries in the United States, school, college, university, public, and society, reporting to the Office of Education in 1929. Libraries of less than 1,000 volumes were not included, and returns from the several states were of varying completeness. Although this total numbered only 161,975,385 in 1929, as con-

TABLE 14\* Volumes per 100 Population in Libraries of 1,000 Volumes, or More, REPORTING TO THE U.S. OFFICE OF EDUCATION IN 1929

New Hampshire					
New Hampshire		_	Volum	ES	STANDARD
Connecticut.         2         5,339,037         331.7         2 19           Vermont.         3         1,164,259         322.8         2.10           Massachusetts         4         13,683,488         322.0         2.08           Rhode Island.         5         1,921,851         279.5         1.61           Nevada.         6         233,930         256.9         1.36           Maine.         7         1,864,504         233.8         1.10           California.         8         12,157,941         214.2         0.88           Oregon.         9         1,792,941         188.0         0.59           Colorado.         10         1,807,331         174.5         0.43           Minnesota.         11         4,312,821         166.9         0.35           Wyoming.         13         373,369         165.5         0.33           New York.         14         20,605,794         163.7         0.31           Iowa.         15         3,822,557         154.7         0.21           Montana.         16         826,713         153.8         0.20           Indiana.         17         4,866,632         148.4         0.14 </td <td>STATE</td> <td>RANK</td> <td>Total</td> <td>Per 100 Population</td> <td></td>	STATE	RANK	Total	Per 100 Population	
Connecticut.         2         5,339,037         331.7         2 19           Vermont.         3         1,164,259         322.8         2.10           Massachusetts         4         13,683,488         322.0         2.08           Rhode Island.         5         1,921,851         279.5         1.61           Nevada.         6         233,930         256.9         1.36           Maine.         7         1,864,504         233.8         1.10           California.         8         12,157,941         214.2         0.88           Oregon.         9         1,792,941         188.0         0.59           Colorado.         10         1,807,331         174.5         0.43           Minnesota.         11         4,312,821         166.9         0.35           Wyoming.         13         373,369         165.5         0.33           New York.         14         20,605,794         163.7         0.31           Iowa.         15         3,822,557         154.7         0.21           Montana.         16         826,713         153.8         0.20           Indiana.         17         4,866,632         148.4         0.14 </td <td>New Hampshire</td> <td>ī</td> <td>2.010.403</td> <td>434.0</td> <td>3.33</td>	New Hampshire	ī	2.010.403	434.0	3.33
Vermont.         3         1,164,259         323.8         2.10           Massachusetts         4         13,683,488         322.0         2.08           Rhode Island.         5         1,921,851         279.5         1.61           Nevada.         6         233,930         256.9         1.36           Maine.         7         1,864,504         233.8         1.10           California.         8         12,157,941         214.2         0.88           Oregon.         9         1,792,941         188.0         0.59           Colorado.         10         1,867,331         174.5         0.43           Minnesota.         11         4,312,821         166.9         0.35           Wyoming.         13         373,369         165.5         0.33           New York.         14         20,605,794         163.7         0.31           Iowa.         15         3,822,557         154.7         0.21           Montana.         16         826,713         153.8         0.20           Indiana.         17         4,866,622         148.4         0.14           Kansas.         18         2,661,715         141.5         0.07	a				
Massachusetts         4         13,683,488         322.0         2.08           Rhode Island         5         1,921,851         279.5         1.61           Nevada         6         233,930         256.9         1.36           Maine         7         1,864,504         233.8         1.10           California         8         12,157,941         214.2         0.88           Oregon         9         1,792,941         188.0         0.59           Colorado         10         1,867,331         174.5         0.43           Minnesota         11         4,312,821         168.2         0.36           Wisconsin         12         4,904,241         166.9         0.35           Wyoming         13         373,369         165.5         0.33           New York         14         20,605,794         163.7         0.31           Iowa         15         3,822,557         154.7         0.21           Montana         16         825,713         153.8         0.20           Indiana         17         4,866,632         148.4         0.14           Kansas         18         2,661,715         141.5         0.07		_			
Rhode Island	Massachusetts	_			1
Nevada. 6 233,930 256.9 1.36 Maine. 7 1,864,504 233.8 1.10 California. 8 12,157,941 214.2 0.88 Oregon. 9 1,792,941 188.0 0.59 Colorado. 10 1,807,331 174.5 0.43 Minnesota. 11 4,312,821 168.2 0.36 Wisconsin. 12 4,904,241 166.9 0.35 Wyoming. 13 373,369 165.5 0.33 New York. 14 20,605,794 163.7 0.31 lowa. 15 3,822,557 154.7 0.21 Montana. 16 826,713 153.8 0.20 Indiana. 17 4,806,632 148.4 0.14 Kansas. 18 2,661,715 141.5 0.07 Utah 19 708,806 139.6 0.04 Hillinois. 20 10,575,141 138.6 0.30 Washington 21 2,152,176 137.7 0.02 Ohio. 22 9,008,651 135.5 0.00 Maryland. 23 2,197,228 134.7 0.01 Delaware 24 299,783 125.8 0.11 Arizona. 25 536,629 123.2 0.14 Missouri. 27 5,595,377 115.6 0.02 New Jersey. 28 4,634,996 114.7 0.23 North Dakota. 29 761,857 110 0.02 29 New Jersey. 28 4,634,996 114.7 0.23 North Dakota. 29 761,857 110 0.02 29 New Jersey. 28 4,634,996 114.7 0.23 North Dakota. 30 1,488,476 108 0.03 North Dakota. 30 1,488,476 108 0.03 28 North Dakota. 30 1,488,476 108 0.03 28 North Dakota. 31 639,504 93.9 0.04 Pennsylvania. 32 8,598,384 89.3 0.05 1 Cansar Membershale. 31 1,472,318 70.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.				1	l .
Maine.       7       1,864,504       233.8       1.10         California.       8       12,157,941       214.2       0.88         Oregon.       9       1,792,941       188.0       0.59         Colorado.       10       1,807,331       174.5       0.43         Minnesota.       11       4,312,821       168.2       0.36         Wisconsin.       12       4,904,241       166.9       0.35         Wyoming.       13       373,369       165.5       0.33         New York.       14       20,605,794       163.7       0.31         Iowa.       15       3,822,557       154.7       0.21         Montana.       16       826,713       153.8       0.20         Indiana.       17       4,806,632       148.4       0.14         Kansas.       18       2,661,715       141.5       0.07         Utah       19       708,866       139.6       0.04         Illinois.       20       10,575,141       138.6       0.03         Washington       21       2,152,176       137.7       0.02         Ohio.       22       9,008,651       135.5       0.00	Nevada	6		1	1
California         8         12,157,941         214.2         0.88           Oregon         9         1,792,941         188.0         0.59           Colorado         10         1,807,331         174.5         0.43           Minnesota         11         4,312,821         168.2         0.36           Wisconsin         12         4,904,241         166.9         0.35           Wyoming         13         373,369         165.5         0.33           New York         14         20,605,794         163.7         0.31           Iowa         15         3,822,557         154.7         0.21           Montana         16         826,713         153.8         0.20           Indiana         17         4,806,632         148.4         0.14           Kansas         18         2,661,715         141.5         0.07           Utah         19         708,806         139.6         0.4           Illinois         20         10,575,141         138.6         0.3           Washington         21         2,152,176         137.7         0.02           Ohio         22         9,08,651         135.5         0.0					
Oregon.         9         1,792,941         188.0         0.59           Colorado.         10         1,807,331         174.5         0.43           Minnesota.         11         4,312,821         168.2         0.36           Wisconsin.         12         4,904,241         166.9         0.35           Wyoming.         13         373,369         165.5         0.33           New York.         14         20,605,794         163.7         0.31           Iowa.         15         3,822,557         154.7         0.21           Montana.         16         826,713         153.8         0.20           Indiana.         17         4,806,632         148.4         0.14           Kansas.         18         2,661,715         141.5         0.07           Utah         19         708,806         139.6         0.4           Illinois.         20         10,575,141         138.6         0.3           Washington         21         2,152,176         137.7         0.02           Mirror         22         9,008,651         135.5         0.00           Maryland.         23         2,197,228         134.7         0.01 <td></td> <td></td> <td></td> <td>1</td> <td></td>				1	
Colorado.         10         1,807,331         174.5         0.43           Minnesota.         11         4,312,821         168.2         0.36           Wisconsin.         12         4,904,241         166.9         0.35           Wyoming.         13         373,369         165.5         0.33           New York.         14         20,605,794         163.7         0.31           Iowa.         15         3,822,557         154.7         0.21           Montana.         16         826,713         153.8         0.20           Indiana.         17         4,806,632         148.4         0.14           Kansas.         18         2,661,715         141.5         0.07           Utah         19         708,866         139.6         0.4           Illinois.         20         10,575,141         138.6         0.0           Washington         21         2,152,176         137.7         0.02           Ohio.         22         9,088,651         135.5         0.00           Maryland.         23         2,197,228         134.7         0.01           Arizona.         25         536,629         123.2         0.14 <td></td> <td>_</td> <td>,</td> <td></td> <td></td>		_	,		
Minnesota.         II         4,312,821         168.2         0.36           Wisconsin.         12         4,904,241         166.9         0.35           Wyoming.         13         373,369         165.5         0.33           New York.         14         20,605,794         163.7         0.31           Iowa.         15         3,822,557         154.7         0.21           Montana.         16         826,713         153.8         0.20           Indiana.         17         4,866,632         148.4         0.14           Kansas.         18         2,661,715         141.5         0.07           Utah         19         708,806         139.6         0.4           Illinois.         20         10,575,141         138.6         0.3           Washington         21         2,152,176         137.7         0.2           Ohio.         22         9,08,651         135.5         0.0           Maryland.         23         2,197,228         134.7         -0.01           Delaware         24         299,783         125.8         -0.11           Arizona.         25         5,6629         123.2         -0.14	· · · · · · · · · · · · · · · · · ·	-			
Wisconsin.         12         4,904,241         166 9         0.35           Wyoming.         13         373,369         165.5         0.33           New York.         14         20,605,794         163.7         0.21           Iowa.         15         3,822,557         154 7         0.21           Montana.         16         826,713         153.8         0.20           Indiana.         17         4,806,632         148.4         0.14           Kansas.         18         2,661,715         141.5         0.07           Utah         19         708,866         139.6         0.04           Illinois.         20         10,575,141         138.6         0.03           Washington         21         2,152,176         137.7         0.02           Ohio.         22         9,008,651         135.5         0.07           Maryland.         23         2,197,228         134.7         -0.01           Delaware         24         299,783         125.8         -0.11           Arizona.         25         536,629         123.2         -0.14           Misosouri.         26         4,273,623         117.8         -0.22     <			1		1
Wyoming.       13       373,369       165.5       0.33         New York.       14       20,605,794       163.7       0.31         Iowa.       15       3,822,557       154.7       0.21         Montana.       16       826,713       153.8       0.20         Indiana.       17       4,806,632       148.4       0.14         Kansas.       18       2,661,715       141.5       0.07         Utah       19       708,806       139.6       0.04         Illinois.       20       10,575,141       138.6       0.03         Washington       21       2,152,176       137.7       0.02         Ohio.       22       9,008,651       135.5       0.00         Maryland.       23       2,197,228       134.7       -0.01         Delaware       24       299,783       125.8       -0.14         Arizona.       25       536,629       123.2       -0.14         Missouri.       26       4,273,623       117.8       -0.22         New Jersey.       28       4,634,996       114.7       -0.23         South Dakota.       29       761,857       110.0       -0.29	Wisconsin	_		t .	
New York.         14         20,605,794         163.7         0.31           Iowa.         15         3,822,557         154.7         0.21           Montana.         16         826,713         153.8         0.20           Indiana.         17         4,806,632         148.4         0.14           Kansas.         18         2,661,715         141.5         0.07           Utah         19         708,806         139.6         0.04           Illinois.         20         10,575,141         138.6         0.03           Washington         21         2,152,176         137.7         0.02           Ohio.         22         9,008,651         135.5         0.00           Maryland.         23         2,197,228         134.7         -0.01           Delaware         24         299,783         125.8         -0.11           Arizona.         25         536,629         123.2         -0.14           Missouri.         26         4,273,623         117.8         -0.20           Michigan.         27         5,595,377         115.6         -0.22           New Jersey.         28         4,634,996         114.7         -0.23			1		
Iowa		•			
Montana         16         826,713         153.8         0.20           Indiana         17         4,806,632         148.4         0 14           Kansas         18         2,661,715         141.5         0.07           Utah         19         708,806         139.6         0.94           Illinois         20         10,575,141         138.6         0.03           Washington         21         2,152,176         137.7         0.02           Ohio         22         9,008,651         135.5         0.00           Maryland         23         2,197,228         134.7         -0.01           Delaware         24         299,783         125.8         -0.11           Arizona         25         536,629         123.2         -0.14           Missouri         26         4,273,623         117.8         -0.20           Michigan         27         5,595,377         115.6         -0.22           New Jersey         28         4,634,996         114.7         -0.23           South Dakota         29         761,857         110.0         -0.22           New Jersey         28         4,594,996         114.7         -0.23		•			
Indiana					1
Kansas.       18       2,661,715       141.5       0.07         Utah       19       708,806       139.6       0.04         Illinois.       20       10,575,141       138.6       0.03         Washington       21       2,152,176       137.7       0.02         Ohio.       22       9,088,651       135.5       0.00         Maryland.       23       2,197,228       134.7       -0.01         Delaware       24       299,783       125.8       -0.11         Arizona.       25       536,629       123.2       -0.14         Missouri.       26       4,273,623       117.8       -0.20         Michigan.       27       5,595,377       115.6       -0.22         New Jersey.       28       4,634,996       114.7       -0.23         South Dakota.       29       761,857       110.0       -0.29         Nebraska.       30       1,488,476       108.0       -0.32         North Dakota.       31       639,504       93.9       -0.47         Pennsylvania.       32       8,598,384       89.3       -0.52         Virginia.       34       1,712,318       70.7       -0.73<					1
Utah         19         708,806         139 6         0 04           Illinois.         20         10,575,141         138.6         0 03           Washington         21         2,152,176         137 7         0 02           Ohio.         22         9,088,651         135 5         0 00           Maryland.         23         2,197,228         134 7         -0 01           Delaware         24         299,783         125 8         -0 11           Arizona.         25         536,629         123.2         -0.14           Missouri.         26         4,273,623         117.8         -0 20           Michigan.         27         5,595,377         115 6         -0.22           New Jersey.         28         4,634,996         114.7         -0.23           South Dakota.         29         761,857         110 0         -0 29           Nebraska.         30         1,488,476         108 0         -0 32           North Dakota.         31         639,504         93 9         -0 47           Pennsylvania.         32         8,598,384         89.3         -0 52           Idaho.         33         388,033         87.2         <				,	•
Illinois	·		1		ì '
Washington       21       2,152,176       137 7       0 02         Ohio       22       9,∞8,651       135 5       0 ∞         Maryland.       23       2,197,228       134 7       −0 01         Delaware       24       299,783       125 8       −0 11         Arizona.       25       536,629       123.2       −0.14         Missouri.       26       4,273,623       117.8       −0 20         Michigan.       27       5,595,377       115 6       −0 22         New Jersey.       28       4,634,996       114.7       −0 23         South Dakota.       29       761,857       110 0       −0 29         Nebraska.       30       1,488,476       108 0       −0 32         North Dakota.       31       639,504       93 9       −0 47         Pennsylvania.       32       8,598,384       89.3       −0 52         Idaho       33       388,933       87.2       −0 54         Virginia.       34       1,712,318       70.7       −0 73         New Mexico.       35       286,315       67 6       −0 76         Oklahoma.       36       1,467,208       61.2		_			
Ohio       22       9,008,651       135 5       0 00         Maryland       23       2,197,228       134 7       -0 01         Delaware       24       299,783       125 8       -0 11         Arizona.       25       536,629       123.2       -0.14         Missouri.       26       4,273,623       117.8       -0.20         Michigan.       27       5,595,377       115 6       -0.22         New Jersey.       28       4,634,996       114.7       -0.23         South Dakota.       29       761,857       110 0       -0.29         Nebraska.       30       1,488,476       108 0       -0.32         North Dakota.       31       639,504       93 9       -0.47         Pennsylvania.       32       8,598,384       89.3       -0.52         Idaho.       33       388,033       87.2       -0.54         Virginia.       34       1,712,318       70.7       -0.73         New Mexico.       35       286,315       67.6       -0.76         Oklahoma.       36       1,467,208       61.2       -0.83         Texas.       37       3,172,065       54.5       -0.				, –	, .
Maryland.       23       2,197,228       134 7       -0 of         Delaware       24       299,783       125 8       -0 if         Arizona.       25       536,629       123.2       -0.14         Missouri.       26       4,273,623       117.8       -0 20         Michigan.       27       5,595,377       115 6       -0.22         New Jersey.       28       4,634,996       114.7       -0.23         South Dakota.       29       761,857       110 0       -0.29         Nebraska.       30       1,488,476       108 0       -0.32         North Dakota.       31       639,504       93 9       -0.47         Pennsylvania.       32       8,598,384       89.3       -0.52         Idaho.       33       388,033       87.2       -0.54         Virginia.       34       1,712,318       70.7       -0.73         New Mexico.       35       286,315       67 6       -0.76         Oklahoma.       36       1,467,208       61.2       -0.83         Texas.       37       3,172,065       54.5       -0.91         Kentucky       38       1,419,693       54.3       -0.9					ı
Delaware       24       299,783       125 8       -0 11         Arizona.       25       536,629       123.2       -0.14         Missouri.       26       4,273,623       117.8       -0.20         Michigan.       27       5,595,377       115 6       -0.22         New Jersey.       28       4,634,996       114.7       -0.23         South Dakota.       29       761,857       110 0       -0.29         Nebraska.       30       1,488,476       108 0       -0.32         North Dakota.       31       639,504       93 9       -0.47         Pennsylvania.       32       8,598,384       89.3       -0.52         Idaho.       33       388,033       87.2       -0.54         Virginia.       34       1,712,318       70.7       -0.73         New Mexico.       35       286,315       67.6       -0.76         Oklahoma.       36       1,467,208       61.2       -0.83         Texas.       37       3,172,065       54.5       -0.91         Kentucky       38       1,419,693       54.3       -0.91         Kentucky       38       1,449,693       54.3       -0.91<					
Arizona. 25 536,629 123.2 -0.14  Missouri. 26 4,273,623 117.8 -0 20  Michigan. 27 5,595,377 115 6 -0.22  New Jersey. 28 4,634,996 114.7 -0.23  South Dakota. 29 761,857 110 0 -0 29  Nebraska. 30 1,488,476 108 0 -0 32  North Dakota. 31 639,504 93 9 -0 47  Pennsylvania. 32 8,598,384 89.3 -0 52  Idaho. 33 388,033 87.2 -0 54  Virginia. 34 1,712,318 70.7 -0 73  New Mexico. 35 286,315 67 6 -0 76  Oklahoma. 36 1,467,208 61.2 -0 83  Texas. 37 3,172,065 54.5 -0 91  Kentucky 38 1,419,693 54.3 -0 91  Tennessee 39 1,406,045 53.7 -0 92  West Virginia. 40 907,054 52.5 -0 93  North Carolina 41 1,434,644 45.3 -1 01  Louisiana. 42 926,165 44.1 -1.02  Florida. 43 642,000 43.7 -1 03  Georgia. 44 1,165,601 40 1 -1.07  Alabama. 45 1,013,163 38 3 -1.09  South Carolina 46 572,630 32 9 -1.15  Mississippi. 47 636,278 31.7 -1.16	1	•	, , , , ,		
Missouri.       26       4,273,623       117.8       -0 20         Michigan.       27       5,595,377       115.6       -0.22         New Jersey.       28       4,634,996       114.7       -0.23         South Dakota.       29       761,857       110.0       -0.29         Nebraska.       30       1,488,476       108.0       -0.32         North Dakota.       31       639,504       93.9       -0.47         Pennsylvania.       32       8,598,384       89.3       -0.52         Idaho.       33       388,033       87.2       -0.54         Virginia.       34       1,712,318       70.7       -0.73         New Mexico.       35       286,315       67.6       -0.76         Oklahoma.       36       1,467,208       61.2       -0.83         Texas.       37       3,172,065       54.5       -0.91         Kentucky       38       1,419,693       54.3       -0.91         Tennessee       39       1,406,045       53.7       -0.92         West Virginia.       40       907,054       52.5       -0.93         North Carolina       41       1,434,644       45.3		•		-	ł .
Michigan.       27       5,595,377       115 6       -0.22         New Jersey.       28       4,634,996       114.7       -0.23         South Dakota.       29       761,857       110 0       -0 29         Nebraska.       30       1,488,476       108 0       -0 32         North Dakota.       31       639,504       93 9       -0 47         Pennsylvania.       32       8,598,384       89.3       -0 52         Idaho.       33       388,033       87.2       -0 54         Virginia.       34       1,712,318       70.7       -0 73         New Mexico.       35       286,315       67 6       -0 76         Oklahoma.       36       1,467,208       61.2       -0 83         Texas.       37       3,172,065       54.5       -0 91         Kentucky       38       1,419,693       54.3       -0 91         Tennessee       39       1,406,045       53.7       -0 92         West Virginia.       40       907,054       52.5       -0 93         North Carolina       41       1,434,644       45.3       -1 01         Louisiana.       42       926,165       44.1					
New Jersey       28       4,634,996       114.7       -0.23         South Dakota       29       761,857       110 0       -0 29         Nebraska       30       1,488,476       108 0       -0 32         North Dakota       31       639,504       93 9       -0 47         Pennsylvania       32       8,598,384       89.3       -0 52         Idaho       33       388,033       87.2       -0 54         Virginia       34       1,712,318       70.7       -0 73         New Mexico       35       286,315       67 6       -0 76         Oklahoma       36       1,467,208       61.2       -0 83         Texas       37       3,172,065       54.5       -0 91         Kentucky       38       1,419,693       54.3       -0 91         Tennessee       39       1,406,045       53.7       -0 92         West Virginia       40       907,054       52.5       -0 93         North Carolina       41       1,434,644       45.3       -1 01         Louisiana       42       926,165       44.1       -1 02         Florida       43       642,000       43.7       -1 03					1
South Dakota.         29         761,857         110 0         -0 29           Nebraska.         30         1,488,476         108 0         -0 32           North Dakota.         31         639,504         93 9         -0 47           Pennsylvania.         32         8,598,384         89.3         -0 52           Idaho.         33         388,033         87.2         -0 54           Virginia.         34         1,712,318         70.7         -0 73           New Mexico.         35         286,315         67 6         -0 76           Oklahoma.         36         1,467,208         61.2         -0 83           Texas.         37         3,172,065         54.5         -0 91           Kentucky         38         1,419,693         54.3         -0 91           Tennessee         39         1,406,045         53.7         -0 92           West Virginia.         40         907,054         52.5         -0 93           North Carolina         41         1,434,644         45.3         -1 01           Louisiana.         42         926,165         44.1         -1 02           Florida.         43         642,000         43.7					l .
Nebraska.         30         1,488,476         108 0         -0 32           North Dakota.         31         639,504         93 9         -0 47           Pennsylvania.         32         8,598,384         89.3         -0 52           Idaho.         33         388,033         87.2         -0 54           Virginia.         34         1,712,318         70.7         -0 73           New Mexico.         35         286,315         67 6         -0 76           Oklahoma.         36         1,467,208         61.2         -0 83           Texas.         37         3,172,065         54.5         -0 91           Kentucky         38         1,419,693         54.3         -0 91           Tennessee         39         1,406,045         53.7         -0 92           West Virginia.         40         907,054         52.5         -0 93           North Carolina         41         1,434,644         45.3         -1 ot           Louisiana.         42         926,165         44.1         -1 oz           Florida.         43         642,000         43.7         -1 oz           Georgia.         44         1,165,601         40 I		20			
North Dakota         31         639,504         93 9         -0 47           Pennsylvania         32         8,598,384         89.3         -0 52           Idaho         33         388,033         87.2         -0 54           Virginia         34         1,712,318         70.7         -0 73           New Mexico         35         286,315         67 6         -0 76           Oklahoma         36         1,467,208         61.2         -0 83           Texas         37         3,172,065         54.5         -0 91           Kentucky         38         1,419,693         54.3         -0 91           Tennessee         39         1,406,045         53.7         -0 92           West Virginia         40         907,054         52.5         -0 93           North Carolina         41         1,434,644         45.3         -1 oi           Louisiana         42         926,165         44.1         -1 .02           Florida         43         642,000         43.7         -1 .03           Georgia         44         1,165,601         40 I         -1 .07           Alabama         45         1,013,163         38 3         -1 .0		-		1	•
Pennsylvania       32       8,598,384       89.3       -0 52         Idaho       33       388,033       87.2       -0 54         Virginia       34       1,712,318       70.7       -0 73         New Mexico       35       286,315       67 6       -0 76         Oklahoma       36       1,467,208       61.2       -0 83         Texas       37       3,172,065       54.5       -0 91         Kentucky       38       1,419,693       54.3       -0 91         Tennessee       39       1,406,045       53.7       -0 92         West Virginia       40       907,054       52.5       -0 93         North Carolina       41       1,434,644       45.3       -1 01         Louisiana       42       926,165       44.1       -1 02         Florida       43       642,000       43.7       -1 03         Georgia       44       1,165,601       40 1       -1 .07         Alabama       45       1,013,163       38 3       -1 .09         South Carolina       46       572,630       32 9       -1 .15         Mississippi       47       636,278       31.7       -1 .16		_		93.9	
Idaho       33       388,033       87.2       -0 54         Virginia.       34       1,712,318       70.7       -0 73         New Mexico       35       286,315       67 6       -0 76         Oklahoma       36       1,467,208       61.2       -0 83         Texas       37       3,172,065       54.5       -0 91         Kentucky       38       1,419,693       54.3       -0 91         Tennessee       39       1,406,045       53.7       -0 92         West Virginia.       40       907,054       52.5       -0 93         North Carolina       41       1,434,644       45.3       -1 01         Louisiana       42       926,165       44.1       -1 02         Florida       43       642,000       43.7       -1 03         Georgia       44       1,165,601       40 1       -1 .07         Alabama       45       1,013,163       38 3       -1 .09         South Carolina       46       572,630       32 9       -1 .15         Mississippi       47       636,278       31.7       -1 .16	- · ·	_			
Virginia       34       1,712,318       70.7       -0 73         New Mexico       35       286,315       67 6       -0 76         Oklahoma       36       1,467,208       61.2       -0 83         Texas       37       3,172,065       54.5       -0 91         Kentucky       38       1,419,693       54.3       -0 91         Tennessee       39       1,406,045       53.7       -0 92         West Virginia       40       907,054       52.5       -0 93         North Carolina       41       1,434,644       45.3       -1 01         Louisiana       42       926,165       44.1       -1.02         Florida       43       642,000       43.7       -1 03         Georgia       44       1,165,601       40 1       -1.07         Alabama       45       1,013,163       38 3       -1.09         South Carolina       46       572,630       32 9       -1.15         Mississippi       47       636,278       31.7       -1.16		-			
New Mexico.       35       286,315       67 6       -076         Oklahoma.       36       1,467,208       61.2       -083         Texas.       37       3,172,065       54.5       -091         Kentucky       38       1,419,693       54.3       -091         Tennessee       39       1,406,045       53.7       -092         West Virginia       40       907,054       52.5       -093         North Carolina       41       1,434,644       45.3       -1 01         Louisiana.       42       926,165       44.1       -1.02         Florida.       43       642,000       43.7       -1 03         Georgia.       44       1,165,601       40 1       -1.07         Alabama.       45       1,013,163       38 3       -1.09         South Carolina       46       572,630       32 9       -1.15         Mississippi.       47       636,278       31.7       -1.16	Virginia				
Oklahoma       36       1,467,208       61.2       -0.83         Texas       37       3,172,065       54.5       -0.91         Kentucky       38       1,419,693       54.3       -0.91         Tennessee       39       1,406,045       53.7       -0.92         West Virginia       40       907,054       52.5       -0.93         North Carolina       41       1,434,644       45.3       -1.01         Louisiana       42       926,165       44.1       -1.02         Florida       43       642,000       43.7       -1.03         Georgia       44       1,165,601       40.1       -1.07         Alabama       45       1,013,163       38.3       -1.09         South Carolina       46       572,630       32.9       -1.15         Mississippi       47       636,278       31.7       -1.16					
Texas       37       3,172,065       54.5       -0 91         Kentucky       38       1,419,693       54.3       -0 91         Tennessee       39       1,406,045       53.7       -0 92         West Virginia       40       907,054       52.5       -0 93         North Carolina       41       1,434,644       45.3       -1 01         Louisiana       42       926,165       44.1       -1.02         Florida       43       642,000       43.7       -1 03         Georgia       44       1,165,601       40 1       -1.07         Alabama       45       1,013,163       38 3       -1.09         South Carolina       46       572,630       32 9       -1.15         Mississippi       47       636,278       31.7       -1.16					
Kentucky       38       1,419,693       54.3       -0 91         Tennessee       39       1,406,045       53.7       -0 92         West Virginia       40       907,054       52.5       -0 93         North Carolina       41       1,434,644       45.3       -1 01         Louisiana       42       926,165       44.1       -1.02         Florida       43       642,000       43.7       -1 03         Georgia       44       1,165,601       40 1       -1.07         Alabama       45       1,013,163       38 3       -1.09         South Carolina       46       572,630       32 9       -1.15         Mississippi       47       636,278       31.7       -1.16		-		54.5	
Tennessee       39       I,406,045       53.7       -0 92         West Virginia       40       907,054       52.5       -0 93         North Carolina       41       I,434,644       45.3       -I oi         Louisiana       42       926,165       44.1       -I .02         Florida       43       642,0∞       43.7       -I .03         Georgia       44       I,165,601       40 I       -I .07         Alabama       45       I,013,163       38 3       -I .09         South Carolina       46       572,630       32 9       -I .15         Mississippi       47       636,278       31.7       -I .16					-
West Virginia       40       907,054       52.5       -0 93         North Carolina       41       1,434,644       45.3       -1 01         Louisiana       42       926,165       44.1       -1.02         Florida       43       642,000       43.7       -1 03         Georgia       44       1,165,601       40 1       -1.07         Alabama       45       1,013,163       38 3       -1.09         South Carolina       46       572,630       32 9       -1.15         Mississippi       47       636,278       31.7       -1.16		_			_
North Carolina       41       1,434,644       45.3       -1 oi         Louisiana       42       926,165       44.1       -1.02         Florida       43       642,000       43.7       -1 o3         Georgia       44       1,165,601       40 I       -1.07         Alabama       45       1,013,163       38 3       -1.09         South Carolina       46       572,630       32 9       -1.15         Mississippi       47       636,278       31.7       -1.16					-
Louisiana		•			
Florida					-1.02
Georgia      44     1,165,601     40 I     -1.07       Alabama      45     1,013,163     38 3     -1.09       South Carolina      46     572,630     32 9     -1.15       Mississippi      47     636,278     31.7     -1.16		43	642,000	43.7	-1 03
Alabama 45 1,013,163 38 3 -1.09 South Carolina 46 572,630 32 9 -1.15 Mississippi 47 636,278 31.7 -1.16	Georgia				
South Carolina.     46     572,630     32 9     -1.15       Mississippi.     47     636,278     31.7     -1.16				38 3	
Mississippi 47 636,278 31.7 -1.16	South Carolina			32 9	-1.15
	Mississippi			31.7	-1.16
			527,042		-1.20

\* Source· U.S. Off. Educ., Statistics of Public, School, and Society Libraries, 1920, Bull. 1930, No. 37 (Wash · Govt. Print. Off., 1931), p 14.

Mean per 100 population (based on means of the 48 states), 135.7; standard deviation, 89.5; U.S. total, 161,975,385; U.S. volumes per 100 population (including District of Columbia), 131.9.

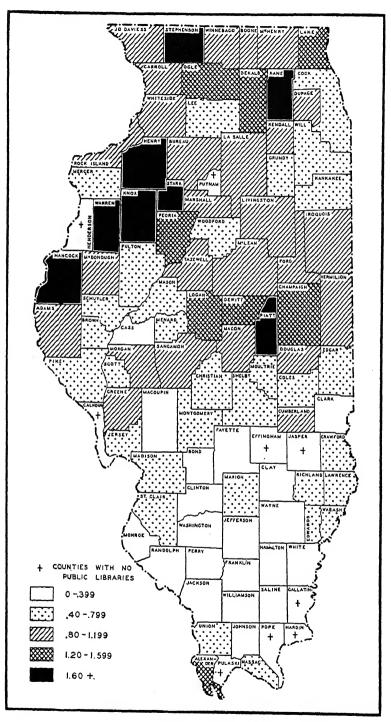


Fig. 13.—Volumes per capita in Illinois public libraries, December 31, 1933. Source: Same as for Table 11.

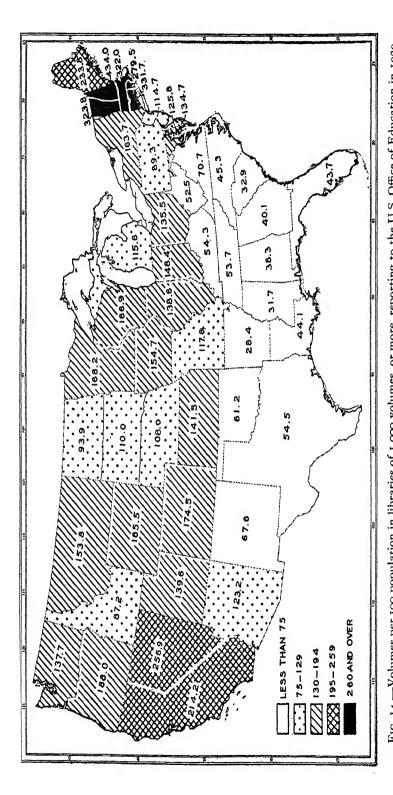


Fig. 14.—Volumes per 100 population in libraries of 1,000 volumes, or more, reporting to the U.S. Office of Education in 1929. Source: Same as for Table 14. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

trasted with 100,470,215 in public libraries, alone, in 1934, the two sets of data, as presented graphically in Figures 11 and 14, respectively, will be seen to correspond almost perfectly. Reference to Tables 9 and 14 will show that the rank orders, with respect to number of volumes, of the first eight states in the two tables are very similar, though not exactly the same, while the eight states lowest with respect to public library holdings fall within the list of the nine states which rank lowest in total li-

TABLE 15\*
STANDARD SCORES OF SEVEN STATES IN TERMS OF PUBLIC LIBRARY HOLDINGS AND TOTAL LIBRARY HOLDINGS

State -	Library Holdings		
STATE	Public	Total	
New Hampshire	3 57	3 33	
Wyoming	0 52	0 33	
Iowa	0.11	0.21	
Minnesota	-o.o8	0 36	
Pennsylvania	-o 56	-0.52	
North Carolina	-o 92	-1 01	
Mississippi	-1 05	<b>-</b> 1 16	

<sup>\*</sup> Source: Tables 9 and 14.

brary resources. If the standard scores of a random group of seven states taken from Table 9 are compared with the standard scores of the same states taken from Table 14, the two sets of indices are seen to be very similar. The similarity is indicated in Table 15.

Minnesota is the only state which appears to be out of line. Differences between the two scores may probably be largely explained by (1) the inclusion of the very extensive holdings of the libraries of higher educational institutions of the state, and (2) differences in the completeness of reports. The rank of Massachusetts in Table 14, for example, is lower than it should be, on account of the omission of statistics for Harvard University.

TABLE 16\*

Volumes Added per 100 Population, in Libraries of 1,000

Volumes, or More, Reporting to the U.S.

Office of Education in 1929

		Volumes	Added	
STATE	Rank	Total	Per 100 Population	Standard Score
California	I	1,207,162	21 26	3 ∞
New Hampshire	2	81,993	17 62	2.13
Connecticut	3	259,101	16 12	I 77
Massachusetts	4	651,563	15 33	1.59
Rhode Island		102,225	14 87	1.48
Oregon	5 6	125,252	13 13	1 06
Nevada	7	11,899	13 07	1 05
Ohio	8	864,176	13 ∞	1 03
Wyoming	9	28,627	12 69	0 96
Indiana	10	406,823	12 56	0 93
Wisconsin	11	328,889	11.19	0 60
Minnesota	12	281,887	10.99	0.55
Utah	13	. 53,555	10.55	0.45
Illinois	14	802,728	10.52	0.45
Vermont	15	37,402	10.40	0.41
New Jersey	16	411,709	10.19	0.36
Montana	17	54,227	10.09	_
New York	18	1,255,035	- 1	0.34
Colorado	19	102,144	9-97 9-86	0.31
Washington	20	1		0.29
Maine	21	150,986	9.83	0.28 0.16
	22	74,429	9 33	
Michigan.		223,510	9.05 8.60	0.09
	23	416,310		-0 01
South Dakota	24	36,664	8.42	-0 06
r <del>, -</del>	25 26	57,280	8.27	-0 09
		153,949	8 18	-0 11
Oklahoma	27	194,141	8 10	-0.13
Maryland	28	130,273	7.98	-0.16
Missouri	29	261,400	7 20	-o 35
Nebraska	30	89,473	6 49	-o 52
North Dakota	31	43,443	6 38	-0.54
Delaware	32	13,860	5.81	-o 68
Pennsylvania	33	547,276	5 68	-o 71
[daho	34	24,929	5.60	-o 73
Texas	35	267,301	5 59	-0.73
New Mexico	36	23,027	5.44	-o 77
North Carolina	37	171,909	5 42	-0 77
Virginia	კ8	121,459	5 02	-0.87
Florida	39	72,826	4 96	<b>−</b> 0 88
Tennessee	40	125,976	4.81	-0 92
West Virginia	<b>4</b> I	78,850	4.56	<b>−</b> 0.98
Louisiana	42	76,986	3 66	-1.19
Kentucky	43	93,448	3 - 57	-I 2I
Arkansas	44	59,879	3.23	-1 29
Georgia	45	83,987	2.89	-I 37
Alabama	46	72,560	2.74	-1 41
South Carolina	46	47,592	2.74	-1.41

<sup>\*</sup> Source: Adapted from U.S. Off. Educ., Statistics of Public, Society, and School Libraries, 1929, pp. 7. 2-13.

12-13.

Mean per 100 population (based on means of the 48 states), 8 66; standard deviation, 4.20; U.S. total, 11,179,583; U.S. volumes per 100 population (including District of Columbia), 9.16.

# TENDENCY OF INEQUALITIES TOWARD PERPETUATION

Not only do inequalities in the number of volumes per capita exist between the various states and regions, but in certain respects they seem to increase and to perpetuate themselves. An examination of Table 16 and Figure 15 reveals the extent to which the inequalities shown by Figures 11 and 14 are being reduced or accentuated through disparity in current additions to accumulated book stocks. In general, the states which are relatively deficient in library book resources are seen to be low in current acquisitions. A more careful scrutiny of Figures 11 and 15 shows that twenty-seven states are in the corresponding interval on the two maps; eighteen states have changed one interval, and three have changed two. On the two tables (Tables 9 and 16) the standard scores of the eight states selected at random for Table 17 show that, except for Minnesota, the order of the standard scores is identical. The extreme position of New Hampshire with respect to book holdings tends to distort the other standard scores of the same table.4

The extent to which inequality in number of books in libraries is being accentuated with the passage of time because of corresponding inequality in rate of acquisition is perhaps better revealed by a comparison of the two sets of data summarized by regions in Figure 16.

In Figure 16 the libraries of the Northeast are seen to have the greatest concentration of volumes, the Far West the next greatest, and the Southeast the smallest. Concentration in the case of public library book stocks is seen to follow somewhat the historical development of public libraries, with the Southeast and Southwest developing at a slower rate per 100 population than the other regions. The book resources of all the libraries of the Middle West and Far West, however, are seen to have in-

<sup>&</sup>lt;sup>4</sup> This reveals a defect of standard scores as indices. One or more extreme cases may influence the average, and particularly the standard deviation, to such an extent as to affect materially the magnitude of the standard scores of the other states. Thus, the omission of New Hampshire from Table 9 would raise the standard score of Connecticut to 1.27 and would change that of Georgia to -0.99. All the others would be correspondingly altered.

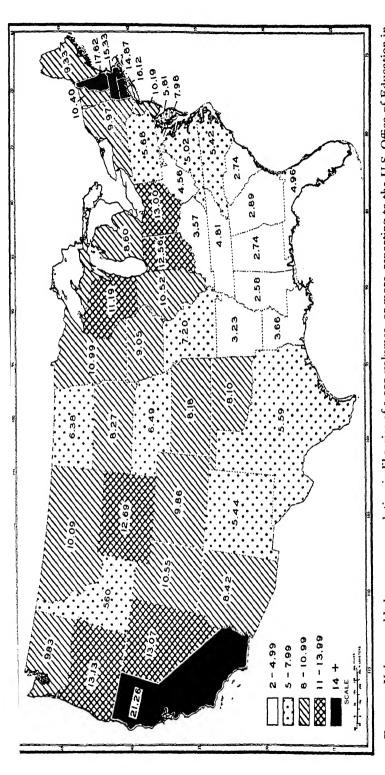


Fig. 15.—Volumes added per 100 population in libraries of 1,000 volumes, or more, reporting to the U.S. Office of Education in 1929. Source: Same as for Table 16. (Goode Base Map No. 110, published by the University of Chicago Press. Used by permission.)

creased at a more rapid rate than those of the Northeast. The rate of accession is 18.08 per 100 population for the Far West

TABLE 17\*

Standard Scores of Eight States Compared in Terms of Library Resources and Acquisitions

	Standard Score		
State	Library Resources	Acquisitions	
New Hampshire Connecticut Montana Colorado Minnesota Kansas North Dakota Georgia	3 57 1 01 0 16 0.03 -0 08 -0 49 -0 79 -0.93	2 13 1 77 0 34 0 29 0 55 -0 11 -0 54 -1 37	

<sup>\*</sup> Source. Tables 9 and 16.

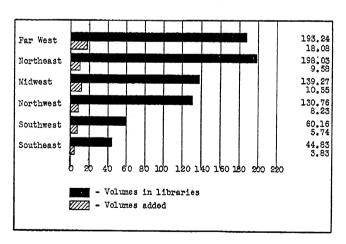


Fig. 16.—Regional summary of volumes, and of volumes added per 100 population, in libraries of 1,000 volumes, or more, reporting to the U.S. Office of Education in 1929.

during 1928, 10.55 for the Middle West, 9.58 for the Northeast, and 3.83 for the Southeast.

The data given above are from totals for the respective re-

gions. The data which appear in Table 18 are drawn from selected public and university libraries of the six regions and are illustrative of the tendency of libraries which have large hold-

TABLE 18\*

Increase of Volumes in Selected Libraries, 1920–35

Region	Place	Voi	UMES	Average Annual Increase		PER CENT OF IN- CREASE
	TEACE	1920	1935	Volumes	Per Cent of 1920	FROM 1920 TO 1935
		Unix	ersity Lıbrarie	8		
Northeast Southeast	Harvard North Carolina Texas Chicago Colorado Stanford	2,028,000 93,914 183,263 599,492 120,468 319,872 3,345,009	3,696,620 278,347 49°,345 1,117,818 273,853 635,873	111,241 12,295 20,472 34,555 10,225 21,066	11.17 5.76 8.49	82.28 196.38 167.56 86.46 127.32 98.79
		Pu	blic Libraries	<u> </u>		
Northeast Southeast Southwest Midwest Northwest Far West Total	Atlanta Houston Chicago Denver San Francisco Los Angeles	212,753† 237,334 386,857	167,004‡ 1,578,589‡ 374,444 470,467 1,460,623	7,208	3·73 5 °7 6.55	39.76 139 00 196 11 55 98 76.00 98 23 277 56

<sup>\*</sup> Source: J T. Gerould, comp, "Statistics of University Libraries, 1919–20"; "1934–35" (Mimeo.); private correspondence; and annual reports of public libraries.

ings to increase them in such way as to maintain their numerical superiority, even though the rate of increase from an arbitrary date is relatively less. For example, Harvard University, which has been adding to its collection at the rate of 111,241 volumes,

<sup>†</sup> Figure for Dec 31, 1919.

<sup>‡</sup> Figure for Dec. 31, 1934.

annually, for fifteen years, had a total of 3,696,620 volumes in 1934-35. Contrast with this the fact that the University of North Carolina had but 278,347 volumes in 1934-35, though it had had an average annual increase of 12,295 for the same period. When this rate of increase taken from 1919 to 1920 is expressed in terms of per cent, it is greater than that of Harvard. Facts like these go far in accounting for the location of the center of library holdings, which remains, as shown in chapter i, to the north and east of the center of the nation's population.

Figures 13 and 17 show the extent to which the inequality between states, with respect to library holdings and growth, carries over into smaller political units within a state. A range is found among the 102 counties of Illinois of from no libraries at all, and hence no library books, or acquisitions, each year in nine counties, to resources of over two volumes per capita, and annual acquisitions of over a tenth of a volume per capita, in two counties. In 21 counties, less than one-fourth of a volume is available to each inhabitant, while in 28 counties, at least one volume per capita is found.

A distinct difference in library resources between the northern and southern halves of Illinois may be noticed in these two figures, as well as in Figure 5, which showed the per cent of the population of each county in Illinois which resides in library districts. In Figure 17 it will be observed that no county south of the approximate center of the state, with the single exception of Alexander, is in either of the two highest intervals, and only five counties south of Greene and of Cumberland rank as high as the middle, or average, interval. In the main, the trend which prevails in Illinois is similar to that which prevails throughout the nation. Although there are many exceptions, the present trend in growth is apparently accentuating year by year the inequalities in distribution of resources which already exist.

# DIFFERENCES IN QUALITY OF LIBRARY RESOURCES

The differences in volumes possessed by the libraries under review have been treated almost exclusively upon a quantitative

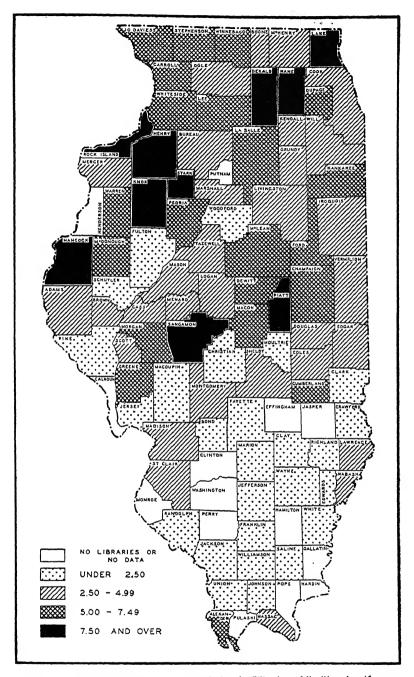


FIG. 17.—Volumes added per 100 population in Illinois public libraries (four-year average), 1929–32. Source: Computed from Illinois State Library, Library Extension Division, Report for January 1, 1928 to December 31, 1929; 1930–31 (Springfield: State of Illinois, 1930; 1932), pp. 46–53; 32–91; Illinois State Library, Library Extension Division, Statistics of the Libraries of Illinois, 1930; 1932 (Springfield: State of Illinois, 1931; 1933), pp. 13–56; 11–57.

basis. To consider them qualitatively is well-nigh impossible, as printed catalogs and critical descriptions of the contents of American libraries, public and otherwise, are available only in a very few instances. The descriptions of the collections in the Harvard library,<sup>5</sup> the New York Public,<sup>6</sup> and of southern<sup>7</sup> and Texas<sup>8</sup> libraries are valuable for this purpose. They offer a notable exception to the general rule. But even if more such descriptions were available, more adequate and exact standards of measure would be required for the successful evaluation and comparison of different collections.

While this is true, certain standards of measure have been developed for public library book collections. These standards show that there are differences in character of collections as well as in number of volumes. Even in the field of fiction, where the circulation frequently constitutes from 50 to 75 per cent of the total circulation of public libraries, different classes are recognized. Juvenile is set over against adult; and within these two broad classes others are to be noted, ranging from the series type to the classic, in the former, and from the light love story to the good modern and classic, in the latter. Mr. Carnovsky, in the evaluation of book collections of seventy-eight public libraries in the metropolitan area of Chicago, developed five standard lists by which he checked the holdings of the various libraries of the area and showed their relative strength in the five fields. From his findings, it was very evident that certain

<sup>&</sup>lt;sup>5</sup> [A. C. Potter], The Library of Harvard University: Descriptive and Historical Notes (4th ed.; Cambridge: Harvard University Press, 1934).

<sup>&</sup>lt;sup>6</sup> H. M. Lydenberg, A History of the New York Public Library: Astor, Lenox, and Tilden Foundations (New York: New York Public Library, 1923).

<sup>&</sup>lt;sup>7</sup> American Library Association, Committee on Resources of Southern Libraries, "Summary of Information on Southern Research Libraries" (Mimeographed; Chicago: American Library Association, 1935).

<sup>&</sup>lt;sup>8</sup> Texas Library Association, *Handbook of Texas Libraries*, *Number Four*, 1935 (Houston, Texas: Texas Library Association, 1935).

<sup>9</sup> J. H. Foster, "An Approach to Fiction through the Characteristics of Its Readers," Library Quarterly, VI (1936), 124-74; L. R. Wilson and E. A. Wight, County Library Service in the South (Chicago: University of Chicago Press, 1935), p. 118.

 $<sup>^{\</sup>rm 10}$  Leon Carnovsky, "Public Library Book Collections,"  $\it Library$  Quarterly, V (1935), 261–88.

libraries which possessed a high per cent of the titles contained in the five check lists were able to serve their patrons effectively. Their book resources were extensive, varied, and selected in such way as to insure library patrons that book needs could be adequately met. It was equally evident that other libraries were not so successful in providing book service which was adequate for their clienteles. The same method of checking, when applied to the public libraries of the entire state of Illinois, showed similar variations. In a study of eleven county libraries in the Southwest and Southeast, which had received assistance from the Julius Rosenwald Fund to provide countywide service for all residents, standards somewhat similar to those used by Mr. Carnovsky were employed, and other interesting variations were found in scope and range of the books and magazines held.<sup>12</sup> Book collections of the counties surveyed in these regions contained a rather high per cent of titles for juvenile readers, because ratio of children to adults in the total population was high. In California, where the ratio of children to adults was low, a greater per cent of adult titles was found. In comparing the libraries of institutions of higher education in the Southeast and the Southwest with those of other regions, it has been found that the book collections, generally, are far less extensive in those areas and are less suited to the support of research than are those in the Northeast, the Midwest, and the Far West. The collections were particularly deficient in bibliographical apparatus for the use of scholars and in their holdings in such practical subjects as electrical engineering, soil science, plant pathology, and animal husbandry. 13

## SUMMARY

That there are differences in the character of book collections in different libraries within a given region, and in different re-

<sup>&</sup>lt;sup>12</sup> Illinois State Library, Library Extension Division, "Report of the Survey of the Public Libraries of Illinois," *Illinois Libraries*, XVII (No. 2, 1935), 48-89.

<sup>12</sup> Wilson and Wight, op. cit., p. 128.

<sup>&</sup>lt;sup>13</sup> L. R. Wilson, "The Role of the Library in Higher Education in the South," School and Society, XLII (1935), 273-82.

gions, is obviously to be taken for granted. Descriptions and critical evaluations of collections, however, are not sufficiently available to justify any other generalizations than the very evident ones that the library needs of a region are more likely to be met by large collections than by small; that the excellence of collections is dependent, in part, upon the amount of money available for their acquisition and the knowledge and skill of those whose duty it is to select them; and that those cities, counties, states, and regions whose library resources have been only slightly developed are lacking not only in per capita holdings but in range and adequacy of holdings as well. The small inadequately and separately supported library found in hundreds of small American communities does make library service available, but only nominally. Its resources are so limited that it is a library in name, only, and falls distressingly short of providing the kind of service its patrons should receive.

It is likewise apparent that the law of "to him that hath shall be given" operates generally in the library field, although the data presented reveal variations in the degree of its application in different regions. Library coverage is gradually being extended; but while this is true, existing inequalities in per capita holdings and in the range of books in book collections tend to perpetuate themselves. Not only do the states that have a low percentage of coverage have the largest proportion of small, inadequate libraries within areas of theoretically complete coverage, but those states with the smallest per capita number of books available to their residents are purchasing fewer new books than those whose collections are more adequate.

The data in this chapter bear depressing testimony concerning the number of books, magazines, and other library materials available to the American public through the local free public library. They show unmistakably that these resources are largely lacking to one-third of the total population and that to another third they are obtainable only in a limited and distressingly inadequate quantity.

## CHAPTER III

# LIBRARY SUPPORT

HE Geography of Reading is concerned with the variations of library accessibility, library resources, and other aspects of library service, rather than with the causes which brought libraries into existence, the justification of their support, or the principles which underlie their various operations. Consequently, this chapter, which treats of the variation of public library support in the several states, will not concern itself with the interesting questions as to whether such support is adequate for the purposes intended, whether it should be borne solely by local political units such as towns, cities, and counties, or whether such units should be assisted in providing such support by the state and federal governments. The prevailing practice at present is that legislation providing for library service is permissive rather than mandatory (as in the case of the support of schools, for which the state usually accepts considerable responsibility), and, consequently, the expense of support for libraries is borne almost exclusively by the local unit.

However, certain exceptions to this general rule should be noted. The constitution of Michigan expressly provides for both the establishment and the maintenance of public libraries. Article XI, section 14, reads:

The Legislature shall provide by law for the establishment of at least one library in each township and city; and all fines assessed and collected in the several counties, cities, and townships for any breach of the penal laws shall be exclusively applied to the support of such libraries.

New York, as early as 1835, passed the first state law providing for tax-supported, free library service, and in 1838 appropriated

Lee Wachtel, "State Provisions for the Support of Municipal Public Libraries and Some Comparisons with State Provisions for the Support of Public Schools," *Library Quarterly*, III (1933), 373-89.

\$55,000 from its federal deposit funds as a stimulus to the founding of district libraries which should be open to the public.<sup>2</sup> Receipt of assistance was conditioned upon the matching of funds by the districts. The law was modified later, but limited state support under certain conditions is still provided. Forty years after the first New York law was enacted, a free public library law was passed by Rhode Island, authorizing the State Board of Education to pay a graduated bounty, up to \$500 a year, to each local library for the purchase of books, provided the sum was matched by local funds.<sup>3</sup>

It was Massachusetts, however, that gave impetus to the state aid movement, in 1890, by establishing a free public library commission and authorizing it to donate \$100 in books to any town upon the founding of a public library. So effective was the work of this agency, that by 1904 every town in the state had received library service, and the effectiveness of state aid was demonstrated beyond reasonable doubt. New Hampshire, Connecticut, and other New England states passed laws differing from these in details, but for the same general purpose. Their state library agencies were charged with the responsibility of administering small grants-in-aid for libraries that met certain conditions.

Outside of New York and New England the practice has taken a number of forms, and since 1896 New Jersey and Louisiana have stimulated library development by furnishing a definite quota of books to libraries that comply with certain conditions at the time of their organization. Under the stimulus of the depression, Pennsylvania provided aid for county libraries on a sliding scale up to a maximum of \$2,500 for any one county. In 1935, Ohio and Illinois made funds available

<sup>&</sup>lt;sup>2</sup> Laws of the State of New York, 1835; 1838 (Albany: Printed by E. Croswell, Printer to the State, 1835; 1838), chap. 80; chap. 237, sec. 4.

<sup>&</sup>lt;sup>3</sup> H. L. Koopman, "Library Progress in Rhode Island," *Library Journal*, XXXI (1906), 11.

<sup>&</sup>lt;sup>4</sup> Massachusetts, Board of Free Public Library Commissioners, Division of Public Libraries, Annual Report of the Board of Free Public Library Commissioners for the Year Ending November 30, 1930 (Boston: The Commission, 1930), p. 3.

for the biennium through special emergency appropriations of \$100,000 and \$600,000, respectively, with which to replenish book stocks of libraries that had been severely depleted during the depression. In 1936, Pennsylvania appropriated \$100,000 for the rehabilitation of libraries which had been severely damaged by the disastrous floods of the early spring.

During 1934, 1935, and 1936, many state library associations carefully considered the question of state participation in public library support, and in a number of states legislation providing state aid has been enacted. As a result of legislative action taken prior to August 1, 1937, the appropriation for Ohio for the biennium had been increased to \$150,000; a new appropriation of \$100,000 for two years had been made in Arkansas; \$25,000 for the biennium, in addition to the regular appropriation had been provided for four regional libraries in Vermont; and the appropriations of seven state library agencies had been increased.<sup>5</sup> In North Carolina and Tennessee state aid acts were passed, but without appropriations to put them into effect, though \$100,000 was appropriated for aid to school libraries in Tennessee. In Michigan public library development was assured through an act appropriating \$500,000 in 1938-39 and annually thereafter for state aid which is to be applied to the establishment of new libraries and to the support of libraries already in operation.

Although general practice is as has been stated, states have usually recognized their responsibility for support of library service by enacting general and special legislation which governs the establishment and administration of libraries, by maintaining state and legislative reference libraries, and by the establishment and support of state agencies for the stimulation and promotion of library service. Furthermore, the federal government, through its various emergency activities (as described in chapter i), has participated in the support of a number of local and state-wide library programs since 1933. Many library buildings have been erected or reconditioned through federal

<sup>&</sup>lt;sup>5</sup> Correspondence with the American Library Association Library Extension Board.

assistance, and many workers have been supplied for special library projects.

The movement toward greater participation by the federal government in public library support was given additional impetus, in 1936, by the provision of an appropriation of \$25,000 by Congress for the inclusion in the U.S. Office of Education of a library agency which should promote library development in the United States, and by the adoption by the Council of the American Library Association of a resolution favoring aid to libraries by the federal government. The functions of the new agency, while not concerned with library support, are defined in the statute as follows:

.... for making surveys, studies, investigations, and reports regarding public, school, college, university, and other libraries; fostering coordination of public and school library service; coordinating library service on the national level with other forms of adult education; developing library participation in Federal projects; fostering Nation-wide coordination of research materials among the more scholarly libraries, inter-State library cooperation, and the development of public, school, and other library service throughout the country. ....<sup>7</sup>

Support for public libraries has also been derived from endowments and gifts. Comprehensive data which cover these classes of income and show their distribution have not, however, been collected since 1929, and in that instance were not specifically separated from like income for other types of libraries. The public libraries of Boston, Providence, and New York have notable endowments, and a considerable number of other cities have smaller sums, but the practice of endowing public libraries has been more largely confined to New England and the Northeast than to any other region, although examples are to be found in all sections of the country. The memorial library, also, is frequently found, but the support of the great majority of public libraries has been provided from public funds. Direct gifts

<sup>&</sup>lt;sup>6</sup> American Library Association Council "[Proceedings], May 11, 15, 1936," American Library Association, Bulletin, XXX (1936), 606–15.

<sup>&</sup>lt;sup>7</sup> U.S. Congress, Statutes at Large of the United States of America [Session Laws], 74th Cong., 2d Sess., Part I, "Public Acts and Resolutions" (Washington: Government Printing Office, 1936), chap. 691, p. 1797.

form a part of the annual income, but they are limited and play a minor role in public library support.

The total operating expenditures of public libraries in the United States for 1934 was \$45,855,400, or 37 cents per capita for the nation. The range was from \$1.08 per capita in Massachusetts to 2 cents in Arkansas and Mississippi. This total, when considered in the terms of percentage of the total expenditures of the municipalities and counties which provided it, and as contrasted with the total percentages for other purposes, such as police protection or schools, is far too low.

Table 19 and Figures 18 and 19 give in detail the variations in per capita public library expenditure for the different states and regions. The data are for the entire populations of the states, as well as for the populations actually served. All general comparisons, however, are made only on the basis of total populations. This is true of every state including Massachusetts and Delaware, all of whose residents live in library service areas. The comparisons reveal the failure of all but one state, Massachusetts, to provide an annual income of one dollar per capita, the amount which the American Library Association has set as its standard. The standard of fifty cents per capita set by the Julius Rosenwald Fund, in 1929, for eleven demonstration county libraries in the Southeast and Southwest, charged with the responsibility of furnishing service to all residents of the county, rural and urban, white and black, in school or out, has been equaled by only nine states. Fifteen states spent amounts ranging from 10 cents down to 2. Inasmuch as these amounts are based on total populations rather than on populations actually served, they are to that extent not comparable with national standards. If the data concerning per capita expenditure for population served are contrasted with those given above, the national average rises from 37 to 59 cents, the minimum from 2 to 8 cents. The variation in West Virginia from 6 to 53 cents is especially marked.

<sup>8 &</sup>quot;Public Library Statistics," American Library Association, Bulletin, XXIX (1935), 252-53.

TABLE 19\* PER CAPITA EXPENDITURE FOR PUBLIC LIBRARIES, 1934

State			XPENDITURES		
State	Rank		Per C	Capita	Standard Score
		Total	Total Population	Population Served	
Massachusetts	1	\$4,596,618	\$1.08	\$1 08	3.27
California	2	4,397,231	-77	79	1.96
Connecticut	3	1,193,∞3	-74	.75	1.84
Ohio	4	4,530,885	. 68	.73	1 58
New York	5	7,838,532	.62	.71	1 33
New Hampshire .	6	277,286	.60	.60	1.24
Rhode Island	7	403,881	.59	.61	1.20
New Jersey	7	2,393,179	- 59	.62	1.20
Oregon	9	530,809	. 56	.79	1.07
Illinois	10	3,751,468	-49	.66	0 78
Wyoming	II	104,753	.46	.48	0.65
Wisconsin	12	1,286,719	44	.63	0.57
Delaware	13	103,463	.43	43	0.52
Indiana	13	1,394,335	.43	.59	0 52
Washington	15	653,724	.42	.70	0.48
Vermont	16	146,819	.41	.44	0.44
Nevada	17	35,884	.39	59	0.35
Minnesota	17	984,870	.39	64	0 35
Michigan	19	1,822,694	.38	50	0 31
Colorado	20	319,574	.31	.55	0 02
Utah	20	155,087	.31	.46	0 02
Maryland	22	446,428	.27	.34	-0 15
Iowa	23	644,295	.26	.55	-o 19
Pennsylvania	23	2,498,796	.26	·33 ·47	-0 I9
Maine	-3 25	196,658	.25	.33	-0 24
Missouri	26	881,466	.24	.48	-o 28
Montana.	27	117,295	. 22	.43	-o 36
Nebraska	28	308,334	. 22	·43 ·45	-o 36
South Dakota	29	143,141	.21	.68	-0 40
Kansas	30	347,261	.19	.00	-0 49
Idaho	31	80,783	.19	59 58	
Florida	32	196,703	.13	-	-0.53
Tennessee	33	322,998	.13	-34	-0 74 -0 70
North Dakota	33 34	68,571	.12	.30	−o 79 −o.87
Kentucky	34	258,013	.10	· 54 · 26	-0.87 -0.87
Oklahoma	34	237,149	.10		-0 87 -0 87
South Carolina	3 <del>4</del> 34	168,832	.10	.29	-0 87 -0 87
Texas		572,870	.10	.25	•
Virginia	34		.08		-o 87
Arizona	39 40	190,329		. 24	-o 96
Georgia	-	28,968	.07	10	-o 99
West Virginia	4I 42	196,147	.07	.24	-1.00
Louisiana	42	108,685	.06	-53	-I 04
Alabama	42	133,127	.06	17	-I.04
North Carolina	42	157,013	.06 .06	.18	-1 04
New Mexico	42	175,513		.12	-I 04
Mississippi	46	22,322	.05	.16	-1.08
Arkansas	47	47,905	.02	.08	-1.21
aiisas	47	30,127	.02	.II	-1.21

\* Source: "Public Library Statistics," A. L. A., Bull., XXIX (1935), 252-53.

Mean per capita (based on per capitas of the 48 states), \$0 31; standard deviation, \$0 236; U.S. total, \$45,855,400; U.S. per capita total population (including District of Columbia), \$0.37, U.S expenditure per capita total population served, \$0.59.

Rank and standard scores are based on per capita per total population rather than per population served.

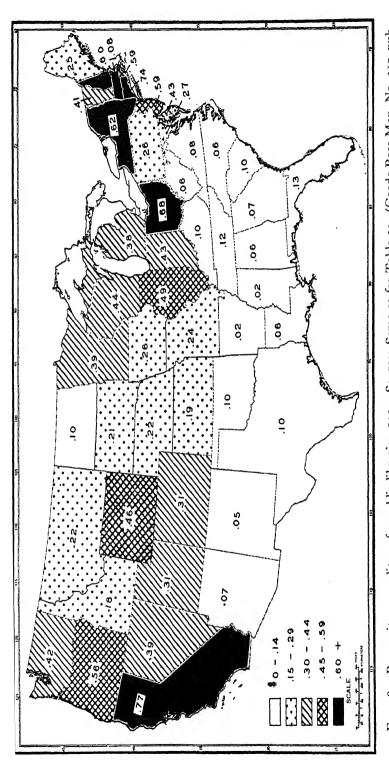


Fig. 18.—Per capita expenditure for public libraries, 1934. Source: Same as for Table 19. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

Table 20 shows the regional increase, or decrease, in per capita expenditure from 1926 to 1935. In spite of the depression, four of the regions increased their expenditures. The decrease in the Far West, from \$0.839 to \$0.678, though seemingly notable, was due not so much to an actual reduction in expendi-

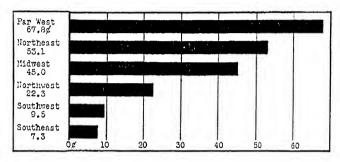


Fig. 19.—Regional summary of per capita expenditure for public libraries, 1934

TABLE 20\*

Per Capita Expenditure (in Cents) for Public Libraries, by Region, 1926 and 1935

Region	1926	1935	Increase
Northeast	\$0 415	\$0 531	\$0 116
Midwest	.440	450	010
Southeast	.066	.073	007
Southwest	.086	.095	009
Northwest	.229	.223	006
Far West	0 839	0.678	-0 161

<sup>\*</sup>Source "Public Library Statistics," A L A, Bull, XXIX (1935), 252-53, A L.A, Com. on Lib Ext, Library Extension (Chic A.L.A., 1926), pp 122-23 Based on population figures from federal census of 1920 and of 1930

ture as to the very great increase in total population. The population in California, for example, increased from 3,426-861 in 1920 to 5,677,251 in 1930. Its corresponding increase in library expenditure was from \$3,709,682 in 1926 to \$4,397,231 in 1934. There was an actual increase, although the per capita rate declined on account of the very unusual increase in population.

TABLE 21\* PER CAPITA EXPENDITURE OF ILLINOIS PUBLIC LIBRARIES (FIVE-YEAR AVERAGE), 1929-33

County	Rank	Amount	Standard Score	County	Rank	Amount	Standard Score
Henry	1	\$0 671	2 41	Cumberland	52	\$0 228	-0 10
Lake	2	669	2 40	Marion	-	227	-0.11
Kane	3	637	2 22	7	53	.221	-0.14
Peoria		618	2 11		54	1	
Piatt	4	.614		Edgar	54	.221	-0.14
	5 6	.612	2 09	Cass	56	.218	-0.16
Winnebago		l .	2 08	Massac	57	.210	-0.20
Warren	7	-599	2 00	Mercer	58	205	-0.23
Knox	8	- 594	1 98	Lee	59	204	-0.24
Cook	9	. 570	1 84	Fulton	60	197	-0.28
Rock Island	10	.512	I 51	Menard	61	189	-0 32
Du Page .	ΙΙ	.49I	1.39	Jersey	62	181	-0 37
Sangamon	12	.485	I 36	Montgomery .	63	175	-0 40
De Kalb	13	.465	I 24	Richland	64	173	-0 41
McLean	14	.456	1.19	Christian	65	166	-0 45
Carroll	15	.436	1 08	Woodford	66	159	-0 49
Macon	15	.436	1 08	Scott	67	.157	-0 51
Morgan	17	.412	0 94	Bond	68	148	-0 56
Alexander	18	.405	0 90	Edwards	69	141	-0 60
La Salle	19	.403	0 89	Jefferson	69	141	-0 60
Stephenson	20	.392	0 83	Marshall	71	137	-0 62
Adams	21	.388	0 81	Moultrie	72	131	-0 65
Champaign	22	383	0 78	Pike	72	131	-0 65
Stark	22	.383	0 78	Williamson	72	131	-0 65
Whiteside	24	355	0 62	Shelby	75	130	-0 66
Jo Daviess	25	352	0 60	Schuyler	76 76	118	-0 73
De Witt	26	.330	0 48	Fayette		112	-0 76
Iroquois	27	319	0 41	Saline	77	,112	-o 76
Kankakee	28	319	0 41	Franklin	77	.109	-0 78
				l	79 80	-	
Ogle Will	29	312	0 37	I i	81	.106	-0 79
Tazewell	30	308	0 35	Wayne	82	.099	-o 83
	31	.307	0 35	Macoupin		.093	-0 87
Livingston	32	301	0.31	Clay	83	.079	-0 95
Mason	33	297	0.29	White	84	.076	-0.97
Vermilion	34	294	0.27	Jackson	85	.073	-o 98
McDonough	35	293	0 27	Hamilton	86	061	-1 05
Bureau	36	292	0 26	Clark	87	.056	80.1
Greene	37	287	0.23	Johnson	88	.054	-1 O9
Logan	38	.280	0 19	Randolph	89	.048	-I I2
Ford	39	279	0 19	Clinton .	90	.011	-1 33
Coles	40	270	0 14	Monroe	91	.009	-I.35
Crawford	4I	.269	0 13	Washington	92	∞6	-1 36
Hancock	42	262	0 09	Perry	93	.∞3	-1 38
Lawrence	43	260	0 08	Calhoun	94	.000	-1 40
McHenry	44	259	0 07	Effingham	94	.000	-1 40
Kendall	45	256	0 06	Gallatin	94	000	-1 40
Wabash	46	255	0 05	Hardin	94	.000	-1 40
St. Clair	47	252	0 03	Henderson	94	000	-1 40
Douglas	48	251	0 03	Jasper	94	000	-1.40
Boone	49	249	0 02	Pope	94	000	-1.40
Grundy	50	.249	0.02	Pulaski	94	.000	-1 40
Madison	50	0.249	0.02	Putnam	94	0.000	-1.40
	,-				74		

<sup>\*</sup>Source: Computed from Ill State Lib, Lib. Ext Div, Report for January 1, 1928 to December 31, 1929, 1930–31; 1932–33 (Springfield: State of Ill, 1930, 1932; 1934), pp. 38–45, 32–93; 27–51; Ill State Lib, Lib. Ext. Div., Statistics of the Libraries of Illinois, 1930, 1932 (Springfield: State of Ill, 1931; 1933), pp. 13–57; 11–57.

Illinois mean per capita (based on means of the 102 counties), \$0 246, Illinois median, \$0.239, Illinois standard deviation, \$0 17615.

#### VARIATIONS WITHIN A STATE

Variations in expenditure within states correspond in general with variations among the states within the nation, except that they are more pronounced. No state wholly lacks public libraries, whereas approximately 40 counties out of every 100 maintain no public library. Table 21, for Illinois, admirably illustrates this condition. The variation is from a high of \$0.67 per capita, for Henry County, to no local expenditure whatever in 9

TABLE 22\*
Per Capita Expenditure of County Libraries

County Libraries	Number of Counties	High	Median	Low
Group I:  Serving all, or most of county  Group II:  Omitting service to county seat, and possibly	27	\$1.390	\$o 666	\$0.189
other sections	25	1.111	0 581	0.199
Serving headquarters, city, and county  Group IV:	7	0 363	0 234	0.111
County served through contract	23	1 160	0 262	0 045

<sup>\*</sup> Source "County Library Statistics," A L. A, Bull, XXX (1936), 115-21.

counties. The services of the state library agency were, of course, available to these 9 counties; and since 1935, service has been provided in portions of the unserved areas through federal library projects directed by the state agency. The distributions are estimated on a per capita basis for the total population of each county, and not for the population served, as Warren County is the only one of the 102 counties which maintains service on a county-wide basis.

The data in Tables 19 and 21 have related to variations in support when total populations, rather than populations actually served, were considered. Tables 22 and 23 show variations in support when only the populations served are considered. Table 22 relates to county populations served by four

groups of counties, all of which provide a total of \$4,500 or more for library service. Populations served range from 589,356 in Hamilton County, Ohio, to 6,763 in Wasco County, Oregon. The basis of grouping is by plan of serving the county, rather than by population size, as in the case of groupings for cities. The ranking expenditures per capita for the four groups are \$1.39 for Plumas County, California; \$1.11 for Tehama County, California; \$0.36 for Richland County, Ohio; and \$1.16 for Wasco County, Oregon, as contrasted with the ranking cities in four groups from 200,000, or more, down to 10,000–34,999; \$1.67 for Cleveland, Ohio; and \$2.17 for Bangor, Maine. The bases of comparison, however, are so uneven that none can be carried out in an entirely valid manner, since selection of both counties and cities is necessarily arbitrary.

TABLE 23\*

Per Capita Expenditure for Public Libraries Serving
City Populations from 200,000, or
More, to 10,000, 1935

Population	Number of Cities	High	Median	Low	
200,000 and over	43	\$1.67	\$0.58	\$0.17	
100,000–199,999	4I	1.03	0.55	0.17	
35,000- 99,999	43	1.73	0.76	0.22	
10,000- 34,999	38	2.17	0.69	0.33	

<sup>\*</sup> Source: "Public Library Statistics," A. L. A., Bull, XXIX (1935), 258-77

#### VARIATIONS WITHIN CITIES

Table 23 summarizes data concerning the expenditure per capita in 165 cities grouped according to population. The American Library Association's standard of one dollar per capita does not recognize differences due to urban or rural conditions, to density or sparsity of population, or to number of population. It is in reality an urban standard, having been arrived at almost exclusively on the basis of city data, since data for county and rural service have not been as extensively collected as those for cities.

The cities ranking high in these four groups are, as indicated above, Cleveland, Ohio, \$1.67; Bridgeport, Connecticut, \$1.03; Cleveland Heights, Ohio, \$1.73; and Bangor Maine, \$2.17.

TABLE 24\*
Per Capita Library Expenditure in Cities over 30,000, 1904–33

City-Size Group	1904	1910	1921	1929	1930	1931	1932	1933
	Operating Expenditure							
30,000-50,000 50,000-100,000 100,000-300,000 300,000-500,000 500,000 and over Total over 30,000 Total over 100,000	\$0 13 0 14 0 17 0 20 0 24 0 19 0 22	\$0 20 0 18 0 21 0 29 0 34 0 27 0 30	\$0 33 0 29 0 35 0 44 0 38 0 37 0 30	\$0 48 0 48 0 54 0 76 0 63 0 59 0 62	\$0 49 0.51 0 58 0 73 0 66 0 61 0.64	\$0 49 0 51 0 59 0 79 0 65 0 61 0 65	\$0 58 0 76 0 59 0 59	\$0 49 0 59 0 53
	Capital Expenditure							
30,000-50,000	\$0 14 0 11 0 09 0 22 0 23 0 17 0 19	\$0 03 0 04 0 04 0 08 0 21 0.12 0 14	\$0 05 0 05 0 05 0 03 0 03 0 04 0 04	\$0 13 0 15 0 18 0 22 0 17 0 17 0 18	\$0 13 0 13 0 20 0 18 0 20 0 18 0 20	\$0.11 0 21 0 15 0 17 0 19 0 18 0 18	\$0 09 0 11 0 15  0 13	\$0 05 0 07 0 06 
	Total Expenditure							
30,000-50,000	\$0 27 0 25 0 26 0 43 0 47 0 37 0 41	\$0.23 0 22 0 25 0 37 0 54 0 38 0 44	\$0 29 0 26 0 32 0 32 0 37 0 32 0 34	\$0 60 0 63 0.72 0 98 0 80 0 76 0 80	\$0 62 0 64 0 79 0.91 0 86 0 79 0.84	\$0 60 0 71 0 74 0 95 0 84 0 79 0 83	\$0 64 0 81 0 74	\$0.54 0 67 0 60

<sup>\*</sup>Source Compiled from U.S. Bur Census, Financial Statistics of Cities Having a Population of Over 30,000: 1904-31 (Wash. Govt Print Off., 1906-33), U.S. Bur Census, Financial Statistics of Cities Having a Population of Over 100,000 1932-34 (Wash. Govt. Print. Off., 1934-36)

Tables 24 and 25 carry the analysis farther and show: (1) the library expenditure per capita, 1904–33, in cities over 30,000,

as computed in *Financial Statistics of Cities*, 1904-34,9 and (2) the per cent of municipal expenditure devoted to libraries for the same cities during the same period. These tables bring out clearly: (a) the increase in per capita operating expenditure from 1904 to 1933 (with variations in the depression period);

TABLE 25\*

Per Cent of Municipal Expenditure Devoted to Libraries
in Cities Over 30,000, 1904-33

City-Size Group	1904	1910	1921	1929	1930	1931	1932	1933
	Operating Expenditure							·
30,000-50,000	1 2 1.2 1.3 1 5 1 3 1 3	1 8 1 6 1 6 1 6 1 6 1 6	I 4 I 3 I 4 I 4 I 1 I 2 I 2	I 5 I 4 I 6 I 5 I 2 I 3 I .3	1.5 1.5 1.7 1.5 1.2 1.4	1 4 1.4 1.6 1 6 1 1 1 3	 1 6 1 4 1.1 	I.5 I.3 I.0
	Capital Expenditure							
30,000-50,000	2 9 1 9 1 3 3 5 1 9 2 0 2 0	0 5 0 5 0 4 0 7 1 9 1.1 1 3	0 7 0 6 0 7 0 4 0 4 0.5	1 0 0 9 0 9 1 0 0 7 0.8 0.8	0 8 0 8 1.1 0.7 0 7 0.8 0 8	1 0 1 6 1.0 0.7 0 8 0 9	0.7 0.8	1.3 0 8 0 8

<sup>\*</sup> Source: Compiled from US Bur. Census, Financial Statistics of Cities Having a Population of Over 30,000: 1904-31; U.S. Bur. Census, Financial Statistics of Cities Having a Population of Over 100,000 1932-34.

(b) the variations in capital expenditure; (c) the general decline for both in 1932 and 1933; and (d) the fairly consistent per cent of the total operating expenditure of municipalities devoted to libraries throughout the entire period.

From all of these tables it is evident that the standard of per

<sup>9</sup> This series (which began in 1902) varies in title. The series for "30,000 population" was ended in 1931. After that the figure in the title was changed to read "100,000."

capita support recommended by the American Library Association is far from realized, and that the library is receiving comparatively an exceedingly small part of the taxpayer's dollar. For all cities of 100,000 population, or more, the library received in 1933, 1.1 per cent of the total operating expenses, as contrasted with 3.5 for recreation and 31.4 for schools, with which it is generally associated.

## VARIATION IN METROPOLITAN AREAS

In chapter i the drift of American population to the city and the increase in the number of metropolitan areas were pointed out as having marked significance for library development. Accessibility of service was seen to be definitely related to urban and metropolitan growth. Variation in library expenditure in such areas is also noteworthy, and the problem of providing such support in them is one of the most perplexing which confronts librarians today. The metropolitan library finds itself called upon to provide library resources, many of which are used by suburban residents who make no direct contribution to their provision. Annexation by the city for taxing purposes is exceedingly difficult, and suburban communities incorporate and provide library service on an individual basis. The result is that the metropolitan library is less able to provide adequate service and that varying standards of support exist side by side in different communities in the metropolitan region. Figure 20 graphically portrays the differences in expenditure of the eighty satellite communities in the metropolitan area of Boston. The differences were as great as 13 to 1. Eleven of the communities spent in 1932 less than 50 cents per capita, while six of them spent more than \$1.75 per capita.

## OTHER FACTS TO BE CONSIDERED

In presenting the tables and figures dealing with financial support, it is obvious that such information may be more useful

<sup>&</sup>lt;sup>10</sup> C. B. Joeckel, *The Government of the American Public Library* (Chicago: University of Chicago Press, 1935), p. 282.

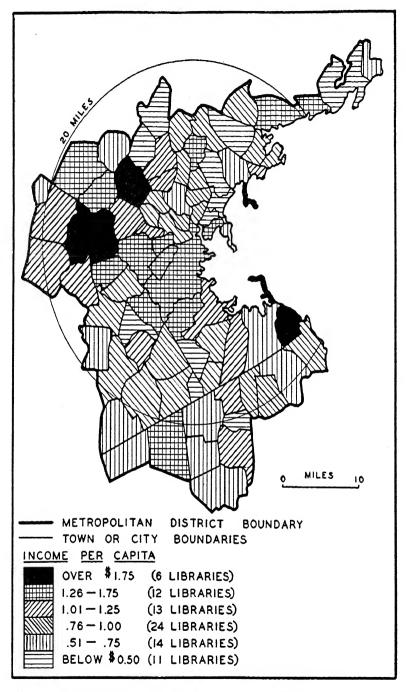


Fig. 20.—Public library income in metropolitan Boston, 1932. Source: C. B. Joeckel, *The Government of the American Public Library* (Chicago: University of Chicago Press, 1935), p. 282.

in placing the library than some of the other measures which have been, or will be, used. The dollar is both a general and a fairly consistent standard of measure. But it must be kept in mind that no unit of measurement is absolute for all sections of the country. In spite of the universality of the dollar, there is variation in the cost of living, salaries, rents, light, heat, freight rates, and other expenses in different regions. Mr. Gee has

TABLE 26\*

Index of Cost of Living

State	Rank	Index	State	Rank	Index	State	Rank	Index
New York Nevada New Jersey California Connecticut Massachusetts Nebraska Wyoming Illinois Michigan Montana Ohio Oregon Rhode Island Wisconsin Arizona	9 9 9 9 9	1 25 1 24 1 21 1 .20 1 16 1 .16 1 .15 1 .15 1 .15 1 .15 1 .15 1 .15 1 .15	South Dakota Washington Colorado Maryland Idaho Indiana New Hampshire Kansas North Dakota Missouri New Mexico	16 16 16 16 23 23 25 25 25 28 28 30 31	I.14 I.14 I.14 I.14 I.13 I 13 I 12 I.12 I.12 I.12 I.11 I 10 I 08 I 08	Oklahoma Kentucky Maine West Virginia Texas Virginia Florida Louisiana North Carolina Tennessee South Carolina	40 40 44 45 45 45	I 08 I 07 I 06 I 06 I 06 I 05 I 04 I 04 I 04 I 04 I 04 I 02 I 02 I 02 I 02 I 02 I 02 I 02 I 02

<sup>\*</sup> Source P. R. Mort, Federal Support for Public Education (N.Y. Bur. Pubs , T.C C.U , 1936), Table 15, p. 105.
U.S. mean (based on indices of the 48 states), 1.11, U.S. median, 1.13.

shown these variations in the cost of living, in the case of the living expenses of professors in institutions of higher learning, to be comparatively slight. Mr. Mort, on the contrary, has found these variations to be considerable, when all elements of the population are included. They range, on an index basis, from 1.00 to 1.25. In general, he found that states with high per cents of urban population have higher living costs and that the maxi-

<sup>&</sup>lt;sup>12</sup> Wilson Gee, Research Barriers in the South (London: Century Company, 1932), pp. 52-67.

mum is reached in cities like Chicago and New York where the index is 1.29.12 Table 26 shows variation by states.

#### OTHER FACTORS OF EXPENSE

Other factors, also, must not be overlooked whenever expense is involved. Density and sparsity of population, climatic differences, and topographic obstacles require attention. Furthermore, it is to be kept in mind that a proper ratio must be maintained between the number of individuals served and the per capita support required to provide efficient administration. The per capita cost of providing basic book collections and effective administration increases relatively if the total population served drops below a given number. This, as will be seen later, is one of the reasons given for the recent comparatively slow development of the county library. The population of many counties is too small to provide an adequate spread of the general charges of administration. Mr. Joeckel has advocated a minimum budget of \$25,000 for the effective administration of a county or a regional library.13 Miss Stewart has placed the amount as ranging from \$15,000 to \$20,000.14 In the report on library service in eleven counties in the South, it was pointed out that few of the counties with less than \$10,000,000 assessed valuation maintain county libraries;15 and an earlier investigation has shown that it is very difficult for a community of less than 4,000 population to maintain independently adequate library service, and that to do this a minimum of \$4,000, annually, is required. 16

<sup>&</sup>lt;sup>12</sup> P. R. Mort, Federal Support for Public Education (New York: Bureau of Publications, Teachers College, Columbia University, 1936), Table 15, p. 105.

<sup>&</sup>lt;sup>13</sup> Joeckel, The Government of the American Public Library, pp. 316-17.

<sup>&</sup>lt;sup>14</sup> H. G. Stewart, "Advantages and Difficulties in the Administration of a Regional Library Unit," American Library Association, *Bulletin*, XXVIII (1934), 606.

<sup>&</sup>lt;sup>15</sup> L. R. Wilson and E. A. Wight, *County Library Service in the South* (Chicago: University of Chicago Press, 1935), p. 181.

<sup>&</sup>lt;sup>16</sup> J. H. Kolb, Service Institutions for Town and Country, University of Wisconsin Agricultural Experiment Station, Research Bulletin, No. 66 (Madison: University of Wisconsin Press, 1925).

#### SUPPORT FOR ALL LIBRARY PURPOSES

The data presented thus far in this chapter have related to differences in expenditure for public libraries. Additional tables, maps, and summaries extend the information concerning the variations in the expenditure of all libraries, in payment of salaries, and in purchase of books, as reported to the U.S. Office of Education in 1929. The total expenditures for all libraries, including college, university, school, society, and public, were \$69,294,121 in 1929, or 65 cents per capita. Of this total, \$52,620,896 was supplied through taxes and public appropriations, and the remainder came from endowment, dues, gifts, and other sources.<sup>17</sup>

Unfortunately, no analysis of this per capita expenditure for all libraries is available. From the data relating to public libraries, exclusively, it is evident that, in 1934, 37 cents per capita was the average amount devoted to their support throughout the nation. Mr. Randall has found that the average per student expenditure for library purposes in twenty selected liberal arts colleges is \$32; for colleges in general, based on a random sample of 95 colleges, it is \$17.42.18 In Mr. Works' study, in 1925, of the budgets of a selected list of college and university libraries, he found that expenditures ranged from 7.0 to 2.2 per cent of the total educational budgets of the institutions concerned.19 The reports from state departments of education offer evidence that some states fail to require their elementary and secondary schools to include in their budgets some fixed amount for school library support, while others require amounts varying from 3 cents per pupil in daily average attendance (as in North Carolina in 1935-36) to \$25 per teacher

<sup>&</sup>lt;sup>17</sup> U.S. Office of Education, Statistics of Public, Society, and School Libraries, 1929, Bulletin 1930, No. 37 (Washington: Government Printing Office, 1931), p. 2.

<sup>&</sup>lt;sup>18</sup> W. M. Randall and F. L. D. Goodrich, *Principles of College Library Administra*tion (Chicago: American Library Association and University of Chicago Press, 1936), p. 218.

<sup>&</sup>lt;sup>19</sup> G. A. Works, *College and University Library Problems* (Chicago: American Library Association, 1927), Table D, pp. 122A–122B.

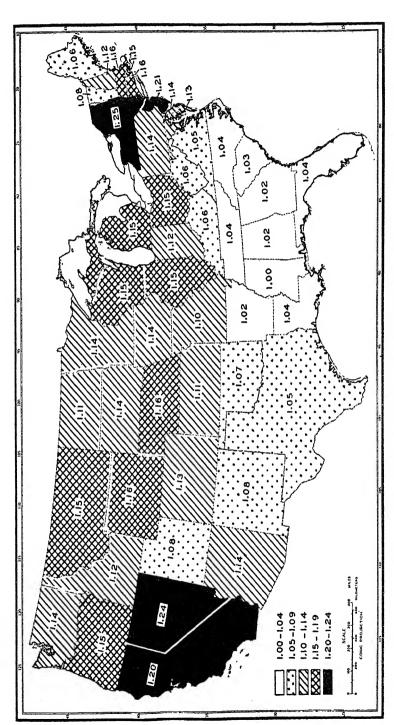


Fig. 21.—Index of cost of living. Source: Same as for Table 26. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

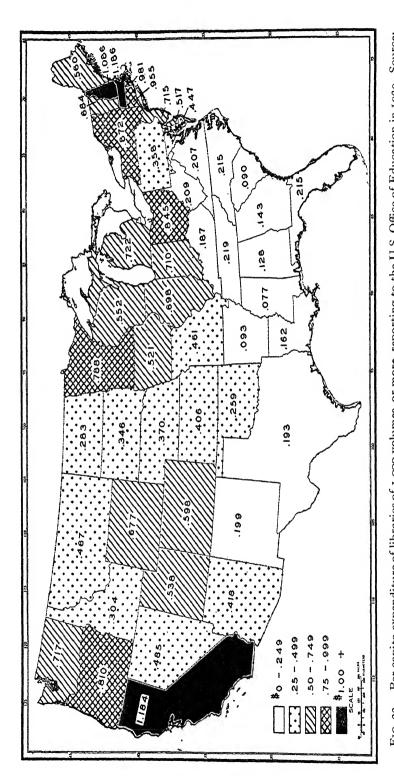


Fig. 22.—Per capita expenditure of libraries of 1,000 volumes, or more, reporting to the U.S. Office of Education in 1929. Source: Same as for Table 27. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

(as in unincorporated schools in California).<sup>20</sup> Regional accrediting agencies have also set up standards of support for school libraries; but analyses of the reports on a nation-wide basis showing per student expenditure for these purposes since 1929 are not available.

### CONFORMITY OF EXPENDITURES TO LIBRARY MAP PATTERN

A careful examination of the tables and maps—especially the maps-which have been used in chapters i, ii, and iii, will reveal a fairly definite library pattern for the nation. If, for example, the map dealing with differences in public library expenditures (Fig. 22) is compared with the map showing differences in population served (Fig. 1), or differences in number of volumes added (Fig. 15), a very marked similarity in the map patterns will be seen. Again, if the data in Table 27 and Figure 22 concerning the expenditure of all libraries of 1,000, or more, volumes reporting to the Office of Education in 1929, are compared with those in Table 19 and Figure 18, which deal with per capita expenditure for public libraries, alone, in 1934, the similarity of the pattern will be seen to be further emphasized. While a more exact comparison can be made on the basis of the standard scores in Tables 19 and 27, the fact begins to emerge in the similarity of the white, shaded, and solid black areas of Figures 18 and 22 that there is a library map, or geography of reading, of the United States, which has fairly definite boundaries and characteristic features. The summary in chapter vii, however, will deal more specifically with the relationships of these various factors.

#### EXPENDITURE FOR BOOKS AND SALARIES

Tables 28 and 29 and Figures 23 and 24 present additional data concerning expenditure for books and salaries, the two major items of expense incurred, in all libraries of 3,000 volumes, or more, reporting to the U.S. Office of Education in 1929. Naturally, both maps (Figs. 23 and 24) are very similar, and

<sup>20</sup> Wilson and Wight, op. cit., pp. 146-47.

TABLE 27\*

Per Capita Expenditure for Libraries of 1,000 Volumes, or More,
Reporting to the U.S. Office of Education in 1929

C	<b>n</b> –	Expenditure f	Standard		
STATE	Rank	Total	Per Capita	Score	
Massachusetts	I	\$ 5,040,879	\$1 186	2 31	
California	2	6,720,062	1 184	2 30	
New Hampshire .	3	505,498	1 086	1 97	
Rhode Island.	4	674,523	981	1 62	
Connecticut		1,534,648	955	I 53	
New York	5 6	10,973,425	872	1 26	
Ohio	7	5,618,712	845	1 17	
Oregon	8	772,945	.810	1 05	
Minnesota.	9	2,019,405	.788	0 97	
Michigan	10	3,498,315	.722	0 75	
Washington	11	1,120,567	.717	0.74	
New Jersey	12	2,889,240	.715		
Indiana				0 73	
Illinois.	13 14	2,297,879 5,322,722	.710 .698	0 71	
Vermont	•			1	
	15	246,123	.684	0 63	
Wyoming	16	152,738	.677	0 60	
Colorado	17	618,972	. 598	0 34	
Maine	18	446,183	. 560	0 21	
Wisconsin.	19	1,620,909	. 552	0.18	
Utah	20	273,223	. 538	0 14	
Iowa	21	1,286,158	. 521	0 08	
Delaware	22	123,351	.517	0 07	
Nevada	23	44,137	. 485	-0 04	
Montana	24	250,967	467	-0 10	
Missouri .	25	1,673,322	.461	-0 12	
Maryland	26	729,668	447	-0.17	
Arizona	27	182,034	418	-0.26	
Kansas	28	763,225	.406	-0.30	
Nebraska	29	509,587	370	-0.43	
Pennsylvania	30	3,448,614	. 358	-0.47	
South Dakota	31	239,964	. 346	-0.51	
Idaho	32	135,173	304	-0.65	
North Dakota	33	192,513	. 283	-0.72	
Oklahoma	34	620, 197	.259	-o 8o	
Tennessee	35	573,338	.219	<b>−</b> 0 93	
Florida	36	314,948	.215	-0 94	
North Carolina	36	681,238	215	-0 94	
West Virginia.	38	362,124	209	-o 96	
Virginia	39	501,631	207	-0 97	
New Mexico	40	84,302	199	-1 00	
Texas	4I	1,125,172	193	-1 02	
Kentucky	42	490,025	. 187	-I 04	
Louisiana.	43	339,855	162	-1 12	
Georgia	44	416,537	.143	-1.19	
Alabama	45	338,984	.128	-1.19 -1.24	
Arkansas	46	171,916		•	
South Carolina	40 47	155,791	093 090	-1.35 -1.36	
Mississippi	47 48	1	- 1	-1.36	
	40	154,843	.077	-1 41	

<sup>\*</sup> Source: U.S. Off. Educ., Statistics of Public, Society, and School Libraries, 1929, Bull 1930, No. 37 (Wash. Govt Print Off., 1931), pp. 11–13.

Mean per capita (based on means of the 48 states), \$0 407, standard deviation, \$0 0299, U.S. total, \$69,294,121, U.S. expenditure per capita (including District of Columbia), \$0 564.

TABLE 28\*

Per Capita Expenditure for Books in Libraries of 3,000 Volumes, or More, Reporting to the U.S. Office of Education in 1929

State	Rane	Expenditure	Expenditure for Books		
STATE	KANK	Total	Per Capita	STANDARE SCORE	
California	I	\$1,822,208	\$0.321	2 75	
New Hampshire	2	142,557	.306	2.54	
Rhode Island	3	178,965	.260	1.89	
Massachusetts	4	1,030,515	.242	1.64	
Connecticut	5	376,736	.234	1.53	
Ohio	6	1,344,640	202	I 09	
Wyoming .	7	43,939	195	0 99	
New York	8	2,360,873	.188	0 89	
Minnesota	8	482,741	.188	0 89	
Oregon	10	169,190	177		
Indiana	11	538,946	.166	0 74	
New Jersey	11	1	.166	0 58	
AT 1 1		672,626		0 58	
Nevada Vermont	13	14,467	. 159	0 49	
Washington	13	57,095	.159	0 49	
Colorado	15	246,490	.158	0.47	
	16	161,327	. 156	0 44	
Michigan	17	748,963	.155	0 43	
Illinois	18	1,174,054	-154	0.42	
Maine	19	110,861	. 139	0.21	
lowa	20	337,919	.137	0.18	
Wisconsin	21	384,725	. 131	0.09	
Arizona	22	56,806	. 130	0.08	
Delaware	23	29,021	. 122	~o o3	
Utah	23	62,074	.122	-0.03	
Maryland	25	197,702	.121	-0.04	
Missouri	26	410,407	.113	-0.16	
Kansas	27	192,418	. 102	-0.31	
Montana	28	54,522	.101	-0.32	
South Dakota	29	62,158	.090	-0.48	
Nebraska	30	120,600	.088	-0.50	
North Carolina	31	264,952	.084	-0.56	
Pennsylvania	32	760,558	.079	-0 63	
Idaho	33	34,905	.078	-0 64	
Oklahoma	34	181,213	.076	-0.67	
Tennessee	35	188,068	.072	-0 73	
North Dakota	35 36	44,196	065	-0 8 <sub>3</sub>	
Texas	37	354,525	061	-0 88	
New Mexico.			061	-o 88	
West Virginia.	37 30	25,907	060		
Virginia	39	103,278		-0 90	
Florida	40	138,778	<b>957</b>	-0 94	
	4I	76,920	052	-1 01	
Louisiana	42	97,043	046	-1 09	
Kentucky	43	99,857	038	-1.20	
Georgia	44	108,160	937	-122	
Alabama	45	96,554	036	-I 23	
Arkansas	46	60,169	.032	-1.29	
Mississippi	47	47,118	.023	-1.41	
South Carolina	48	37,224	0 021	-I 44	

TABLE 29\*

Per Capita Expenditure for Salaries in Libraries of 3,000 Volumes, or More, Reporting to the U.S. Office of Education in 1929

State	RANK	Expenditure f	Standard		
STATE	RANK	Total	Per Capita	Score	
Massachusetts .	I	\$2,827,269	\$0 665	2 36	
California	2	3,718,820	.655	2 30	
Rhode Island	3	371,305	. 540	1 62	
New Hampshire	4	244,854	526	1 53	
Connecticut .	5	835,782	. 520	1 50	
New York	6	6,257,645	497	1 36	
Ohio	7	3,228,594	.485	1 30	
Oregon	8	461,372	.483	1.28	
Minnesota	9	1,107,436	.431	0 98	
Michigan	10	2,056,689	.424	0 94	
Washington	11	662,689	.423	0 93	
Illinois	12	3,133,800	.410	0 85	
New Jersey	13	1,607,917	.397	0 78	
Indiana	14	1,243,780	.384	0 70	
Colorado	15	339,522	.327	0 36	
Vermont	15	117,709	.327	0 36	
Wyoming	15	73,750	.327	0 36	
Wisconsin	18	870,647	. 296	0 18	
Delaware	18	70,590	. 296	0 18	
Utah	20	146,609	. 288	0 13	
Montana	21	149,561	278	0 07	
Iowa	22	678,501	. 274	0 05	
Maryland	23	423,276	. 259	-0 04	
Missouri	24	937,204	. 258	-0 05	
Nevada	25	22,784	. 250	-0 10	
Maine	26	172,630	. 216	-0.29	
Kansas	27	398,894	.212	-0.32	
Pennsylvania	28	1,976,900	205	-0.36	
Arizona	29	89,149	204	-0.36	
Nebraska	30	254,042	. 184	-0.48	
South Dakota	31	118,401	. 170	-0.56	
Idaho	32	70,749	. 159	-o 63	
North Dakota .	33	102,653	. 150	-o 68	
Oklahoma	34	303,616	. 126	<b>−</b> 0 83	
Virginia	35	283,480	.117	-o 88	
Tennessee	36	276,697	. 105	-0 95	
Florida	36	154,369	. 105	-0.95	
Kentucky	38	267,190	. 102	-o 97	
North Carolina .	39	315,483	.099	-0 99	
Texas	40	528,406	.090	-1.04	
West Virginia	4I	151,570	087	-I 06	
New Mexico	42	36,800	086	-1 o6	
Louisiana .	43	163,827	.078	-1.11	
Georgia .	44	220,728	.075	<b>—1 13</b>	
Alabama	45	177,251	.067	-ı ı8	
South Carolina	46	69,972	.040	-1 3 <sub>4</sub>	
Arkansas	47	69,332	037	-1 35	
Mississippi	48	66,086	0 032	-r 38	

<sup>\*</sup> Source U.S Off Educ, Statistics of Public, Society, and School Libraries, 1929, p. 11
Mean per capita (based on means of the 48 states), \$0 266; standard deviation, \$0 1693, U.S. total, \$39,695,093, U.S. expenditure per capita (including District of Columbia), \$0 32

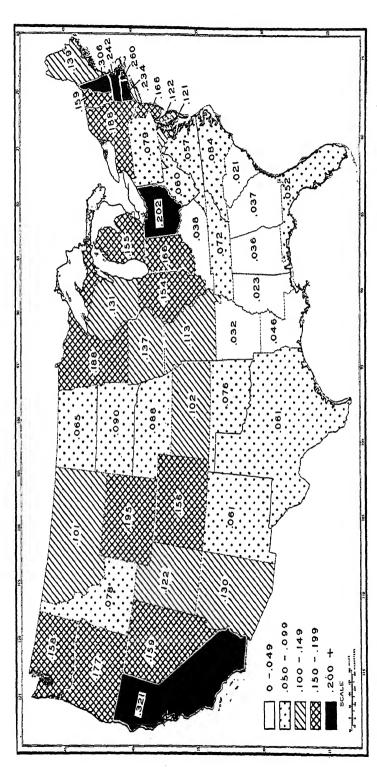


Fig. 23.—Per capita expenditure for books in libraries of 3,000 volumes, or more, reporting to the U.S. Office of Education in 1929. Source: Same as for Table 28. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.) The figures in this map are expressed in terms of dollars.

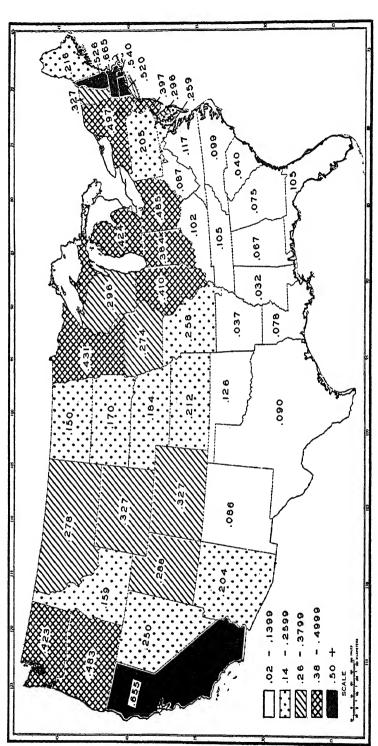


FIG. 24.—Per capita expenditure for salaries in libraries of 3,000 volumes, or more, reporting to the U.S. Office of Education in 1929. Source: Same as for Table 29. (Goode Base Map No. 110, published by the University of Chicago Press. Used by permission.)
The figures in this map are expressed in terms of dollars.

Nevada is the only state to vary more than one interval. Figure 25 summarizes the data on expenditure for books and salaries, by regions, and further emphasizes regional as well as national similarities.

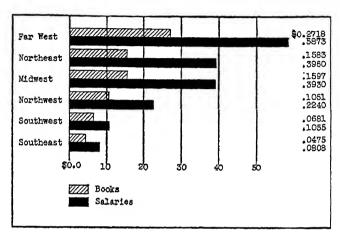


Fig. 25.—Regional summary of per capita expenditure for books and for salaries in libraries of 3,000 volumes, or more, reporting to the U.S. Office of Education in 1929.

#### SUMMARY OF LIBRARY EXPENDITURES

The data presented in this chapter, although too incomplete to give an entirely adequate conception of the status of library expenditure in the United States, do present a fairly vivid idea of what the various states and regions of the country are paying for library service. Several facts thus revealed are inescapable. These are:

- 1. The average expenditure for public libraries, when total population is used as the basis of comparison, is only 37 cents. It varies from 2 cents per capita to \$1.08. When only population actually served is considered, the average is 59 cents.
- 2. The average per cent of the total revenues devoted to the support of public libraries in American cities of 30,000 population, or more, has been fairly steady since 1904. Its variation in cities grouped by different sizes is from 1.8 to 1.1 per cent. The average for the period is approximately 1.3 per cent. Data concerning school, college, and university library support on a com-

prehensive, national basis are not nearly so complete as desired. State and regional standardizing agencies offer convincing evidence, however, that library support, as an essential to effective school, college, and university study, is receiving increasing emphasis.

- 3. The income of public libraries decreased considerably from 1931 to 1934, while the demand for their services during the same period was greatly increased.
- 4. There has been a considerable trend in the direction of state, and possibly federal, participation in public library support in order to secure greater equalization of library opportunity throughout the nation. Participation by the federal government, however, has been almost exclusively in the form of emergency assistance.

#### CHAPTER IV

#### LIBRARY USE

ATHOUGH the public library has existed in America for somewhat more than a century and has developed many records by which it measures the volume and character of its service, it has developed no measures by means of which its social significance can be accurately and adequately ascertained. This, as will be shown in chapter xv, is due in large measure to the fundamental difficulty of measuring the effect which reading produces upon individuals. It is also due to the high cost of studies which might effect this result.

The annual report of a library and the statistical statements which it submits to the American Library Association and to the U.S. Office of Education set forth, of course, many items of interest concerning its activities for the year. The report shows the total number of volumes owned by the library, the number of volumes added during the year, the number of volumes placed in special collections for different racial groups in the population or made available through branches and stations. The work with the foreign-born, with children, and with schools is described: the service of the staff—particularly the reference staff—to individuals, newspapers, and various organizations is noted; the expert assistance rendered by the library to scientists and to scholars is indicated; the part which the library plays in providing recreational reading is shown; and if the library maintains lecture rooms for formal or informal adult educational groups, or if, through its book lists, study outlines, or the participation of its personnel, it contributes to the adult educational activities of the community, the facts are duly recorded. The library records also contain varied information concerning the types of books circulated, the number of interlibrary loans, the number of persons using the library for reading and study, and many other items of which the record is valuable for administrative purposes.

The principal data upon which the library depends in measuring its social significance to its patrons are the number of volumes circulated and the number of borrowers served during the year. Unlike the high school or college, it cannot say how many students it has graduated; it has to content itself with saying that it has a body of patrons that numbers so many thousands who have borrowed during the year so many thousands or millions of books. Only in rare instances, as in the analyses made in several recent surveys, is a more minute and costly record kept, showing the specific kinds of books used by population groups which are differentiated by age, sex, education, nationality, and marital and occupational status, or indicating to what extent, in contrast with other agencies, the library supplies materials.

The chief points to commend number of borrowers and circulation as yardsticks are that they show the number of individuals in a given community who make more or less regular use of certain features of a public service which is educational and cultural in nature, and that the data are usually available. Both have limitations as measures, but these limitations are obviated reasonably well in comparisons in which states are used as the comparable units. The chief objection to the use of these measures is that they are deficient in the respects mentioned above, and consequently cannot be employed as satisfactorily as is desirable in evaluating the real significance of the library to the community which it serves.

#### PUBLIC LIBRARY CIRCULATION

The circulation in public libraries in the United States during 1934 was 449,998,845 volumes.<sup>3</sup> This gave an increase of

<sup>&</sup>lt;sup>1</sup> W. C. Haygood, "Who Uses the Public Library." (MS in press.)

<sup>&</sup>lt;sup>2</sup> R. E. Ellsworth, "The Distribution of Books and Magazines in Selected Communities" (Unpublished Ph.D. dissertation, Graduate Library School, University of Chicago, 1937), p. 10.

<sup>3 &</sup>quot;Public Library Statistics," American Library Association, Bulletin, XXIX (1935), 252-53.

TABLE 30\* PER CAPITA CIRCULATION OF PUBLIC LIBRARIES, 1934

	<del></del>	T				
_			Circulation			
STATE	RANK	Total	Per Capita Total Population	Per Capita Population Served	Standard Score	
California	I	51,863,170	9 14	9 31	2 48	
Massachusetts	2	33,037,446	7 77	7 77	1 87	
New Hampshire	3	3,355,274	7 21	7 24	1 63	
Wyoming .	4	1,571,568	6 97	7 23	I 52	
Washington.	5 6	9,680,084	6 83	10 42	1 46	
Oregon		6,506,078	6 82	9 72	1 45	
Connecticut.	7	10,736,668	6 68	6 74	1 39	
Indiana.	8	20,834,772	6 43	8 85	1 28	
Vermont	9	2,248,792	6 25	6 74	I 20	
Wisconsin	10	17,327,593	5 89	8 46	I 04	
New Jersey	11	21,791,977	5 39	5 67	0 82	
Ohio	12	33,199,581	4 99	5 37	0 65	
Rhode Island	13	3,394,560	4 94	5.12	0 63	
Maine	14	3,796,499	4 76	6 44	0 55	
Iowa	15	11,384,612	4 60	9.66	0 48	
Michigan	16	21,177,239	4.37	5.78	0 37	
New York	17	54,666,625	4 33	4.96	0 36	
Delaware	17	1,032,027	4.33	4.33	0 36	
Utah	19	2,146,176	4.23	6.30	0 31	
Illinois	20	31,444,867	4.12	5-53	0.26	
Minnesota	21	10,372,628	4.04	6.75	0 23	
Colorado	22	3,980,278	3.84	6 87	0.14	
Nevada	23	329,057	3.61	5 42	0 04	
Nebraska .	24	4,570,889	3.31	6 68	-0.09	
Montana	25	1,685,216	3.13	6 15	-0.17	
Missouri Idaho	26	10,034,297	2.76	5.51	-o 33	
South Dakota	27	1,214,645	2.73	8 70	-o 35	
	28	1,860,412	2.68	9 78	-0.37	
Kansas	29	4,804,364	2.55	5 43	-0.43	
Arizona	30	1,048,351	2.41	3 75	-0.49	
Oklahoma	31	5,489,226	2.29	6 75	-0.54	
Pennsylvania	32	21,955,411	2 27	4 16	-0.55	
Maryland.	33	3,428,173	2 10	2 64	-0.63	
Tennessee	34	4,443,872	1.70	4 09	-0.80	
Florida	35	2,413,308	1 64	4 14	-o.83	
	36	1,030,118	1 51	8.05	-0.89	
Texas	37	7,459,417	I 45	3 66	-0.91	
Virginia	38	2,796,971	1 15	3 46	-I.04	
New Mexico	39	445,622	1 05	3.16	-1.09	
Kentucky	40	<sup>2</sup> ,734,734	1 04	2 80	-1.09	
North Carolina	4I	3,291,102	1 03	2 31	-1.10	
ouisiana	42	2,065,480	0 98	2 57	-I 12	
Georgia	43	2,732,040	0 94	3 30	-I 14	
labama	44	2,334,543	0 88	2 73	-1.16	
Vest Virginia	45	1,122,065	0 65	5.48	— I.26	
	46	1,097,439	0 63	1.59	-I 27	
rkansas Iississippi	47	720,953	0 39	2.56	-I.38	
TISSISSIDD!	48	719,615	0 36	1.14	-1 39	

\* Source: "Public Library Statistics," A. L. A, Bull., XXIX (1935), 252-53.

Mean per capita total population (based on means of the 48 states), 3.52; mean per capita population served (based on means of the 48 states), 5.80; standard deviation, 2.26; U.S. total, 449,998,845, U.S. circulation per capita (including District of Columbia), 3.67.

Rank and standard scores are based on total population rather than on population served.

223,855,919 over the 226,142,926 volumes circulated in 19264—a remarkable doubling in the decade, and that, too, in spite of greatly reduced budgets in 1934. Unfortunately, no nationwide record has been kept of the number of borrowers to whom these volumes were loaned. They were unofficially estimated, however, by the American Library Association to be 26,000,000 in 1936.

Table 30 and Figures 26 and 27 present information concerning the variations in per capita circulations by states and regions. From these data it is seen that library use, as measured by circulation, corresponds closely to library accessibility, resources, and support. The nature of the political unit (town system in New England and county systems in California, New Jersey, et al.) also plays an important role here. California leads all the states with a per capita circulation of 9.14 volumes. The Far West leads the regions with 8.3. Massachusetts and New Hampshire stand second and third in the rank order of states. but the Northeast is slightly outranked by the Midwest as a region. The Far West outranks the Southeast approximately eight times. No state reaches the American Library Association standard of 10 per capita for all of its population. A number of states, however, exceed this standard in their loans of books to the population served.

If Figure 26 (Per capita circulation of public libraries, 1934) is compared with Figure I (Per cent of population of each state residing in local public library districts, 1934), it will be found that twenty-three states are in the same interval on both maps, twenty-one vary one interval, and four vary two. Washington and Iowa stand two intervals higher with respect to circulation than with respect to population served, while the reverse is true of Maryland and Delaware. If Figure 26 is compared with Figure II (Volumes per capita in public libraries, 1934), it will be found that thirty-three states are in the same interval, while the two states, Washington and Nevada,

<sup>&</sup>lt;sup>4</sup> American Library Association, Committee on Library Extension, Library Extension (Chicago: American Library Association, 1926), p. 123.

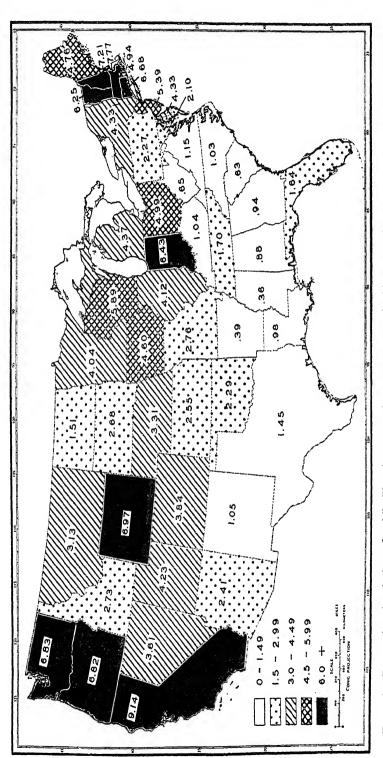


Fig. 26.—Per capita circulation of public libraries, 1934. Source: Same as for Table 30. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

vary two intervals with Washington rating higher in circulation, and Nevada in holdings.

If the data of Figure 18 (Per capita expenditure for public libraries, 1934) are used as an index of support, it will be seen that thirty states are in the same interval as in Figure 26, but

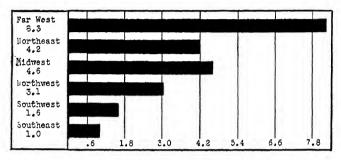


Fig. 27.—Regional summary of per capita circulation of public libraries, 1934

TABLE 31\*
Per Capita Public Library Circulation by Regions
1926 and 1935

Region	1926	1935	Increase
Northeast Midwest Southeast Southwest Northwest Far West	2 5	4.2	1.7
	2 8	4.6	1 8
	0 4	I O	0 6
	0 6	I.6	1 0
	1 8	3.I	1.3
	5 9	8 3	2 4

<sup>\*</sup> Source: "Public Library Statistics," A. L. A., Bull, XXIX (1935), 252-53, A. L. A., Com. on Lib. Ext., Library Extension (Chic. A. L. A., 1926), p. 123. Population figures are from the federal census of 1920 and of 1930.

that Washington, Wyoming, Iowa, Indiana, Maine, Vermont, and New York vary two intervals between the two maps. If these seven states are compared more carefully, it will be noticed that all of them except New York rank two intervals higher in circulation than in expenditure. It would appear that their residents receive more for their money, in so far as books borrowed is an index of what they are getting, than do the citizens of the other states. In New York, on the contrary, the expendi-

tures rank two intervals higher than the circulation. This disparity in the case of New York, however, may well be attributed to the noncirculation of the major part of the New York Public Library at Forty-second Street, and to the high cost of living index for the city (1.29), cited in chapter iii. It seems rather significant that the states which have the highest per capita circulation in their respective regions are those which have effective types of book distribution to the entire population. Town and city libraries in New England, county libraries in California, New Jersey, and Wyoming, and county and township libraries in Indiana, most of which serve total populations, seem largely responsible for this excellent showing.

#### CIRCULATION WITHIN ILLINOIS

Table 32 shows the variations in circulation within the state of Illinois for the five years 1929–33. Except for Warren County, which has county-wide service, the circulation is based upon the entire population of each county, instead of upon the population served. Nine counties contained no libraries, and data concerning four were not available for the period.

#### CIRCULATION IN COUNTIES HAVING COUNTY SERVICE

Table 33 presents data concerning per capita circulation in counties which provided at least \$4,500 for county service in 1935. The counties ranking highest in the four groups were: Sutter County, California, 13.72; San Diego, California, 13.58; Cass County, Indiana, 11.08; and Koochiching, Minnesota, 14.46. The populations, which are not given in the table, range from 589,356 down to 6,763.5 The American Library Association standards for per capita circulation in cities of various sizes may be contrasted with these: cities over 1,000,000, 5; between 200,000 and 1,000,000, 7; between 100,000 and 200,000, 8; between 10,000 and 100,000, 9; below 10,000, 10.6

<sup>5 &</sup>quot;County Library Statistics," American Library Association, Bulletin, XXX (1936), 115-21.

<sup>6 &</sup>quot;Standards for Public Libraries," American Library Association, Bulletin, XXVII (1933), 513-14.

TABLE 32\* AVERAGE PER CAPITA CIRCULATION OF PUBLIC LIBRARIES IN ILLINOIS, 1929-33

				11			
County	Rank	Circu- lation	Standard Score	County	Rank	Circu- lation	Standard Score
Warren	1	8 63	3 64	Mason	46	2 68	-0.17
Kane	2	8 41	2 22	Edgar	47	2 67	-0 18
Alexander	3	6 37	2 19	Brown	48	2 66	-0 19
Knox	4	5 81	I 83	Menard	49	2 65	-0 19
Rock Island .	5	5 78	1 81	Marshall .	50	2 58	-0 24
Stephenson .	6	5 77	1 81	Christian	50	2 58	-0 24
Peoria	7	5 70	1 76	Livingston	52	,	
Henry	8	5 61	1 71	Grundy .	_		-o 33
Piatt	9	5 24	I 47	Williamson.	53	٠,	-0 36
Sangamon.	10	5.03		Boone	54		-0 40
Winnebago .	11	1 " "	55	3.6 1	55		-0 42
Champaign.	12	1 1 1		Madison	56	2 27	-0.44
Macon		4 89	т .		57	2 21	-0 47
Wabash	13	4 43	0 95	Lee	58	2 20	-o 48
Cook	14	4 39	0 92	Fulton .	59	2 16	-o 51
Lake	15 16	4 35	0 90	Scott Pike	60	2 00	-0 61
McLean		4 32	0 88	1	61	1 98	-0 62
~	17	4 26	0 84	Woodford	62	1 95	-0 64
T.CII	18	4 15	0 77	Union	63	1.93	-o 65
	19	4 12	0 75	Cass	64	1 90	-o 67
Vermilion .	20	4 09	o 73	Mercer .	65	1 87	-o 69
Morgan .	21	3 97	0 65	Massac	65	1 87	-o 69
Ford	22	3 96	0 65	Crawford	67	ı 86	-o 7o
De Witt	22	3 96	0 65	Montgomery	68	I 85	-o 71
Du Page	24	3 83	0 56	Marion	69	181	-o 73
Will	25	3.76	0 52	Jersey	70	1 80	<del>-</del> 0 74
Cumberland	26	3 54	0 38	Saline	71	1 69	-o 81
Coles	27	3 52	0 37	Shelby	72	1 64	-o 8 <sub>4</sub>
Stark	28	3.41	0 30	Bond	73	I 53	-0 91
Adams	28	3 4 <sup>I</sup>	0 30	Franklin	74	1 48	-o 94
Jo Daviess	30	3 33	0 24	Moultrie	75	I 44	-o 97
Greene	31	3 32	0 24	Schuyler .	76	1 36	-1 02
Hancock	32	3 31	0 23	Edwards	77	1 33	-1 O4
Whiteside	33	3 30	0.22	Fayette	78	1 32	-1 05
Lawrence	34	3 21	0 17	Richland	79	1 31	-I 05
Carroll	34	3 21	0.17	Jackson	80	I	-1.15
Kankakee	36	3 07	0 08	Jefferson	81	I 15	-1 15
Kendall	37	3 04	0 06	Macoupin .	82	- 1	-I 23
McDonough .	38	3 00	0 03	Clark	83	- 1	-I 27
Douglas	39	2.93	-o or	White	84		-ı 28
St. Člair	40	2 92	-0 02	Wayne	85	0 92	-I 30
Logan	41	2.79	-o 10	Hamilton	86	- 1	-I 50
Iroquois	42	12.1	-0 11	Randolph .	87		-I 5I
McĤenry	43		-0 I2	Clay .	88	- 55	-ı 68
Bureau	43		-O I2	Johnson	89	00	— I 69
Tazewell	45	''	-o 16	J	~9	- 31	1 09
	.5	1				1	
			- 11			1	

<sup>\*</sup>Source Computed from Ill. State Lib, Lib Ext Div, Report for January 1, 1928 to December 31, 1929, 1930-31, 1932-33 (Springfield State of Ill, 1930, 1932, 1931), pp 46-53, 32-91; 27-51, Ill State Lib, Lib Ext. Div, Statistics of the Libraries of Illinois, 1930, 1932 (Springfield State of Ill, 1931, 1933), pp. 13-56, 11-57.

There are no data for the following counties. Calhoun, Clinton, Effingham, Gallatin, Hardin, Henderson, Jasper, Monroe, Perry, Pope, Pulaski, Putnam, Washington.

Illinois mean (based on means of 89 counties), 2 97, Illinois median, 2 70, Illinois standard deviation, 1.56.

#### CIRCULATION IN CITIES

Table 34 carries the analysis farther in cities<sup>7</sup> in four groups. Cleveland, Ohio, leads the group of large cities with a per capita circulation of 10.95; Bridgeport, Connecticut, the second group with 9.96; Pasadena, California, the third group with

TABLE 33\*
Per Capita Circulation of County Libraries, 1935

County Libraries	Number of Counties	High	Median	Low
Group I: Serving all, or most, of county Group II:	27	13 72	7 56	2 83
Omitting service to county seat, and possibly other sections Group III:	25	13.58	4 75	0.12
Serving headquarters, city, and county	7	11 08	5.16	2 40
Group IV: County served through contract	23	14 46	3 90	0 98

<sup>\*</sup>Source "County Library Statistics," A. L. A., Bull., XXX (1936), 115-21.

TABLE 34\*

Per Capita Circulation of Public Libraries Serving City
Populations from 200,000, or More,

TO 10,000, 1935

Population	Number of Cities	High	Median	Low
200,000 and over	43	10 95	5 47	2.01
	41	9 96	5.51	1.67
	43	17.93	7 93	2.63
	38	16 06	9 02	4.86

<sup>\*</sup> Source "County Library Statistics," A L A, Bull., XXX (1936), 115-21.

17.93; and Hibbing, Minnesota, the fourth group with 16.06. Those ranking lowest for the corresponding groups are Philadelphia, Pennsylvania, 2.01; Nashville, Tennessee, 1.67; Orange, New Jersey, 2.63; and Alliance, Ohio, 4.86.

<sup>7 &</sup>quot;Public Library Statistics," American Library Association, Bulletin, XXX (1936), pp. 258-59, 263, 268, 273.

#### PER CAPITA CIRCULATION OF ALL LIBRARIES

The data discussed thus far in this chapter relate to the per capita circulation of public and county libraries. The circulation of public libraries constitutes the greatest element of all circulation reported to the U.S. Office of Education. In 1929, the total number of volumes reported as loaned for home use by all libraries, including school, college, university, public, and others, of 3,000 volumes, or more, was 336,758,203.8 Figure 28 gives data concerning the per capita circulation of all libraries of 1,000 volumes, or more, reporting in 1929 to the Office of Education. It adds little to the information presented in regard to the per capita circulation in public libraries, except to confirm the distribution which the latter portrayed. Thirty-two states maintain the same relative status on both maps, and none of those remaining varies more than one interval.

Somewhat surprising, at first glance, is the fact that in nearly every state the combined circulation from all libraries having 1,000 or more volumes, which reported to the Office of Education in 1929, was considerably exceeded, in 1935, by the circulation of public libraries, alone, reported to the American Library Association. This may be explained by the failure of a large number of libraries to report in 1929, and by the great increase in circulation in public libraries all over the country from 1929 to 1935. From 1926 to 1935 the circulation figures for public libraries were almost doubled, the increase in volumes being 223,855,919. To

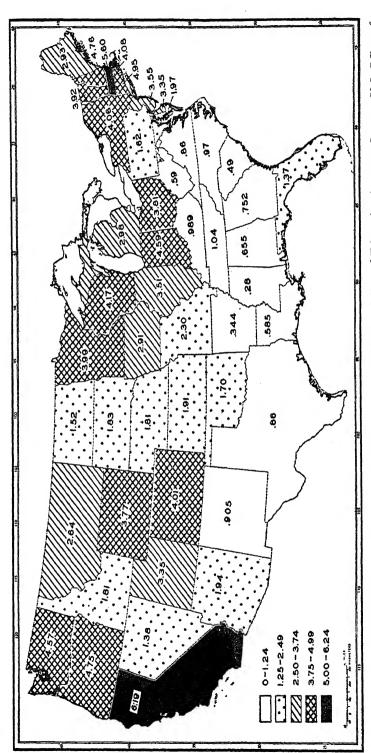
#### LIBRARY REGISTRANTS

Although the number of registered borrowers is one of the two measures by which library use is generally evaluated, the

<sup>&</sup>lt;sup>8</sup> U.S. Office of Education, *Statistics of Public*, *Society*, and *School Libraries*, 1929, Bulletin 1930, No. 37 (Washington: Government Printing Office, 1931), p. 7.

<sup>9</sup> If the American Library Association had procured data for 1933 circulation instead of that for 1934, the total would have been even greater, as circulation began to drop in 1933–34.

<sup>&</sup>lt;sup>10</sup> "Public Library Statistics," American Library Association, Bulletin, XXIX (1935), 253; American Library Association, Committee on Library Extension, op. cst., pp. 122-23.



Education, Statistics of Public, Society, and School Libraries, 1929, Bulletin 1930, No. 37 (Washington: Government Printing Office, 1931), p. 7. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.) Fig. 28.—Per capita circulation of books in libraries reporting to the U.S. Office of Education in 1929. Source: U.S. Office of

record concerning it is not nearly so accurately kept as that of circulation. Individual libraries keep records, the American Library Association has established what per cent of residents should be registrants of public libraries in cities of varying populations, and accrediting agencies of schools, colleges, and universities require the maintenance of records of library use, including borrowers; but yet no complete record on a national and state basis is available. The nearest and latest approximation to such a record is that compiled by the U.S. Office of Education in 1929.

Unfortunately, the statistics which it gives present no distinction between public and other libraries, and as a result no comparisons between circulation and registration can be made for the public libraries. The major fact, however, which this record reveals is that 19,635,906 borrowers' cards were in force in 4,134 libraries of 3,000 volumes, or more, which reported in 1929. This number was obviously considerably under the real total, as libraries of less than 3,000 volumes were excluded, and only 4,134 libraries of the 6,429 which reported on other matters reported on the number of registrants. The American Library Association estimated, in 1936, that there were 26,000,000 public library registrants, but this was only an estimate. In spite of incompleteness of data, therefore, it is apparent that approximately one out of every five persons in the United States is a holder of a library card—an impressive total when compared with the enrolment of 6,096,488 students in public and private high schools in 1933-34, it or 1,054,360 students enrolled in public and private American colleges, universities, and professional schools the same year.

Table 35 and Figures 29 and 30 present the data concerning the distribution of library card-holders on a nation-wide basis, as reported in 1929. When they are reduced to graphic expression, as in the regional summary (Fig. 30), the inequality of opportunity to draw upon the resources of well-stocked, competently staffed libraries is tragically apparent.

<sup>&</sup>quot; Correspondence with U.S. Office of Education, 1936.

TABLE 35\*

Per Cent of Population Registered as Borrowers in Libraries of 1,000 Volumes, or More, Reporting to the U.S.

Office of Education in 1929

S=	ъ.	REGISTERED B	REGISTERED BORROWERS		
STATE	RANK	Total	Per Cent	Score	
California	I	1,792,267	31 57	I 95	
Oregon	2	292,644	30 68	1 85	
New Hampshire	3	138,275	29 72	I 73	
New York	4	3,571,643	28 37	1 56	
Rhode Island	5	191,762	27 89	I 51	
Indiana	6	893,910	27 60	I 48	
Utah	7	130,577	25 71	I 25	
Vermont	, 8	88,125	24 51	1.10	
Washington	9	382,201	24 45	I 09	
Massachusetts	10	1,029,848	24 23	1 06	
Connecticut	11	1	23 24	0 94	
New Jersey	12	373,393 862,7∞	21 35	0 71	
Montana	13		20 99	0 68	
Minnesota.		112,859	20 68	0 64	
	14	530, 120		1	
Wyoming	15	46,093	20 43	0 60	
Wisconsin	16	590,343	20 09	0 57	
Colorado	17	206,721	19 96	0 54	
Illinois	18	1,503,847	19 71	0 52	
Ohio	19	1,245,238	18.73	0 40	
Michigan	20	879,005	18 15	0 33	
Maine	21	141,167	17 70	0 28	
Iowa	22	394,814	15 98	0 07	
Kansas	23	286,453	15 23	-0.02	
Idaho	24	63,895	14 36	-0.13	
Nevada	25	12,947	14 22	-0.15	
Missouri	26	503,466	13 87	-0 19	
Delaware	27	30,014	12.59	-0 34	
Nebraska	28	169,631	12.31	-0 38	
Oklahoma	29	283,170	11.82	-0.44	
Pennsylvania	30	1,120,887	11 64	-0 46	
South Dakota	31	71,858	10.37	-0.62	
Arizona	32	44,776	10 28	-0 63	
North Dakota	33	65,285	9.59	-0.70	
Texas	34	547,758	9 40	<b>-</b> 0 73	
Maryland	35	151,871	9 31	-0 74	
Florida	36	129,675	8.83	-0 80	
West Virginia	37	134,572	7 78	-0 93	
New Mexico	38	30,939	7 31	-0 98	
Virginia	39	166,848	6.89	-1 03	
Tennessee	39 40	173,643	6.64	-1 06	
North Carolina		198,776	6 27	-1.11	
	4I			-1.11 -1.15	
Georgia	42	173,467	5.96 * 6~		
	43	149,983	5 67	-I 19	
Louisiana	44	105,380	5 01	-I 26	
Kentucky	45	130,003	4 97	-I 27	
South Carolina	46	66,811	3 84	-I 40	
Arkansas	47	47,064	2.54	-1.56	
Mississippi	48	41,654	2 07	-1.62	

<sup>\*</sup> Source. U.S. Off. Educ., Statistics of Public, Society, and School Libraries, 1929, Bull. 1930, No. 37 (Wash.: Govt. Print. Off., 1931), pp. 7, 12–13.

Mean per cent (based on means of the 48 states), 15-42; standard deviation, 8.27; U.S. total, 20,307,766; U.S. per cent (including District of Columbia), 16-54.

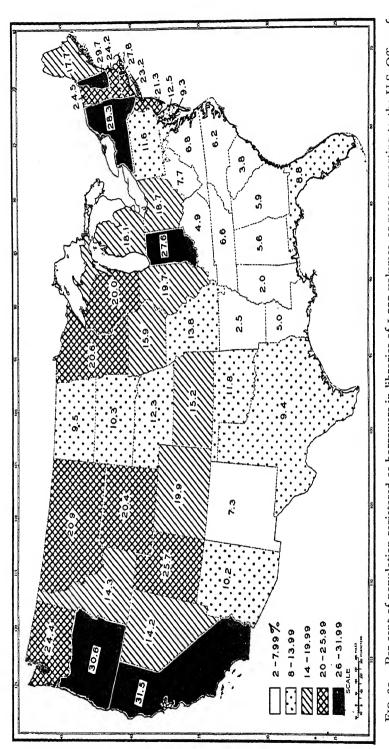


FIG. 29.—Per cent of population registered as borrowers in libraries of 1,000 volumes, or more, reporting to the U.S. Office of Education in 1929. Source: Same as for Table 35. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

## REGISTRATION AND CIRCULATION BY COUNTIES WITHIN A STATE

The library map of the nation has by this time assumed fairly definite form. The Far West and the Northeast are for the most part represented on the maps as black or heavily shaded, the Southeast and Southwest, as white or dotted, with the Midwest and Northwest shaded between. A careful mapping of library accessibility, holdings, support, etc., by counties within states, wherever data are available, frequently shows even more decided patterns. Such a study of Tennessee, for example, will

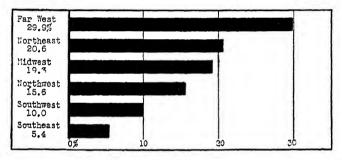


Fig. 30.—Regional summary of per cent of population registered as borrowers in libraries of 1,000 volumes, or more, reporting to the U.S. Office of Education in 1929.

usually show Knox, Davidson, Jefferson, and Shelby counties in the black. Library development within them is high, whereas a number of other counties wholly lacking public libraries will be shown in the white, with other counties falling consistently between. In North Carolina, the counties in the mountain highlands, the Piedmont region, the eastern cotton belt, and the tidewater region, all tend to differentiate themselves, as far as libraries are concerned, according to a fairly discernible pattern.

Figures 31 and 32, which represent the status of Illinois counties as to registered borrowers and per capita circulation, do not present striking illustrations of this tendency, since the geographical features of Illinois are not so varied as those of Tennessee or North Carolina. But the sequence of Illinois maps, thus far, has at least given some indication of such a pattern, particularly in the lower half of the state, where, in the case of

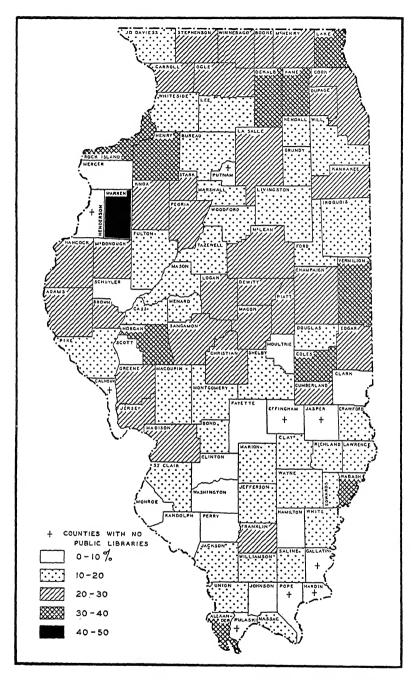


Fig. 31.—Per cent of population registered as borrowers, by county, in Illinois (five-year average), 1929–33. Source: Computed from Illinois State Library, Library Extension Division, Report for January 1, 1928 to December 31, 1929; 1930–31; 1932–33 (Springfield: State of Illinois, 1930; 1932; 1934), pp. 46–57; 32–90; 27–51; Illinois State Library, Library Extension Division, Statistics of the Libraries of Illinois, 1930; 1932 (Springfield: State of Illinois, 1931; 1933), pp. 13–56; 11–56.

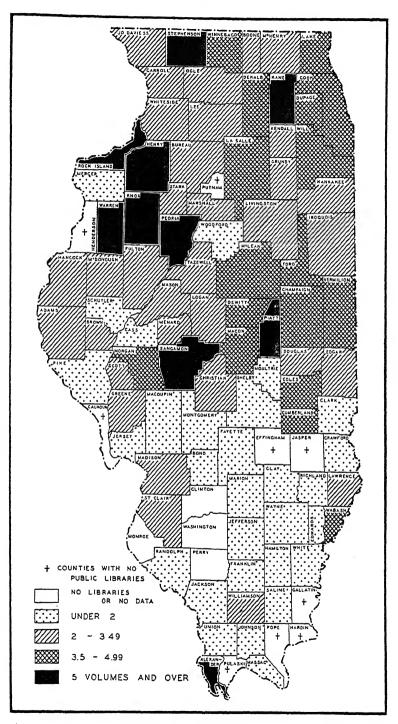


Fig. 32.—Per capita annual circulation, Illinois (five-year average), 1929–33. Source: Same as for Fig. 31.

registration, the inequality is found to be even greater than that throughout the nation. For the range in counties is from no registrants whatever in nine, to over 40 per cent in one, whereas no state is shown without some library registrants.

#### REGISTRATION WITHIN CITIES

Statistics of registration within cities have been compiled for a number of years by the American Library Association. Table 36 summarizes the findings for 165 cities in four groups for 1935. The cities ranking high in the four groups are Cleve-

TABLE 36\*

Per Cent of Population Registered in Public Libraries Serving City Populations from 200,000, or More, to 10,000, 1935

Population			Number of Cities	High	Median	Low	
200,000 and over				43	35.78	23.02	11 96
100,000-199,999				4 <sup>I</sup>	50 41	28.28	13 55
35,000- 99,999				43	68.36	36.35	18 88
10,000- 34,999.				38	74.20	40 65	25.80

<sup>\*</sup> Source: "Public Library Statistics," A. L. A, Bull., XXX (1936), 255-78.

land, Ohio, 35.78; San Diego, California, 50.41; Pasadena, California, 68.36; and Hempstead, New York, 74.20.<sup>12</sup> Those ranking correspondingly low are Philadelphia, Pennsylvania, 11.96; El Paso, Texas, 13.55; St. John, New Brunswick, 18.88; and Aliquippa, Pennsylvania, 25.80. The American Library Association standards for different-sized cities are: in cities over 1,000,000, 25 per cent; 200,000 to 1,000,000, 30 per cent; 100,000 to 200,000, 35 per cent; 10,000 to 100,000, 40 per cent; and less than 10,000, 50 per cent. As seen from the data, circulation and registration tend to increase on a per capita or percentage basis as population decreases within city groups. In the

<sup>&</sup>lt;sup>12</sup> "Public Library Statistics," American Library Association, *Bulletin*, XXX (1936), 255–78. The citation of data of this character for one year, only, is not altogether satisfactory, as it may not reveal usual or constant conditions.

case of county registration, groups are not based on population but upon areas served, and no general information has been collected as to registrants for the year under consideration.

#### CIRCULATION THROUGH LIBRARY EXTENSION AGENCIES

To offset the lack of library service within states, state library agencies generally maintain general collections and package and traveling libraries. In New York, California, New Jersey, Oregon, and other states, the general collections are extensive, and their state agencies maintain extensive loan services to local libraries by means of which the latter are able to supply books that would not otherwise be available to their registrants.

Another function of the state agency is to supply library materials to residents of areas not served by libraries. It was seen earlier that in Delaware the state library agency serves such residents somewhat in the capacity of a county library. It maintains branch and deposit libraries and operates a bookmobile. In a number of states, package and traveling libraries are also loaned to individuals and villages. But the total of this type of service, while seemingly of considerable extent, is not sufficient to wipe out the inequalities shown above. In 1926, 1,746,483 volumes were loaned in this way in the United States and Canada, but it was pointed out by the American Library Association that this total was normally exceeded by the circulation of a single city of 300,000 inhabitants.

Figure 33 indicates the extent to which traveling libraries sent out by the state extension agency succeeded in equalizing library opportunity in Illinois prior to the organization of service through federal agencies under the Library Extension Division of the Illinois State Library. The most important fact to notice is that in only one county did the circulation of books from the extension division amount in fifteen months to as much as one book for every three inhabitants. In only nine counties were books borrowed to the extent of one book for every ten

<sup>&</sup>lt;sup>23</sup> American Library Association, Committee on Library Extension, op. cit., p. 123.

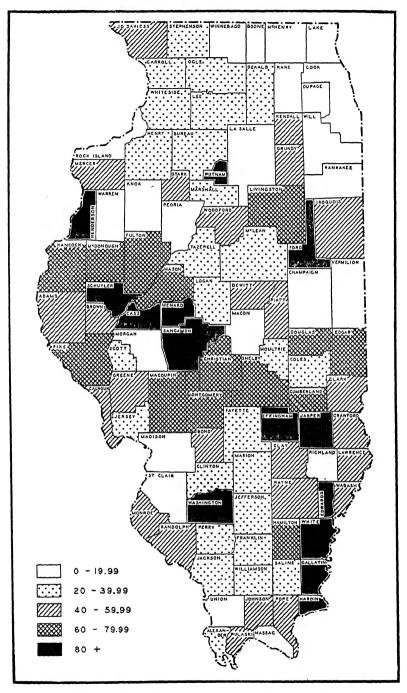


Fig. 33.—Circulation of books from the Library Extension Division of the Illinois State Library, for fifteen months per 1,000 population, 1934–35. Source: Correspondence with Miss Anna May Price, Illinois State Library, Library Extension Division, supplying unpublished data for 1934–35.

residents. However, it is interesting, and perhaps significant, to notice that six of the nine counties without a single public library rank among the eleven counties making the greatest per capita use of the extension division books.

#### LIBRARY EXTENSION THROUGH FEDERAL AGENCIES

The situation described in the preceding pages, it should be stated, is that which generally prevailed before the federal government began in 1933 and 1934 to participate in developing library service as an emergency relief measure. In Illinois, for example, an extensive service including many registrants was organized in 1936 for many communities which previously were without library service. Service organized under such auspices in Mississippi and other states has already been mentioned in chapter i. The record of such service, however, is so imperfect as to make an exact statement concerning it impossible, other than to say that 2,115,984 persons had been brought within it prior to March 1, 1937. Even though additional areas have been served through state and federal agencies in the manner indicated, the fact remains that approximately 43,000,000 people are still without both local public library service and service from federal agencies, and that the effort to serve them through state and federal agencies has so far altered the situation but slightly.

#### SUMMARY

The problem of measuring the social significance of the public library is far from solution. This is true because of the difficulties and expense involved in carrying out studies which would reveal, with a fair degree of accuracy, the effects of reading upon different library patrons. Possibly the solution of the problem cannot be satisfactorily achieved because the effect which the reading of a given book may produce upon one individual may be quite different from that produced upon another.

Two measures of library use, however, have been devised and are generally employed even in the smallest libraries. These are

the number of volumes per capita circulated annually among its patrons and the per cent of the population making more or less regular use of its various services. These measures do not include a record of questions answered through reference service; of aid given to readers, study groups, and clubs; of the lectures held, broadcasts participated in, films shown, etc.—all of which are normal activities of many libraries and should be taken into consideration in any effort to evaluate the full significance of library service to a community.

The data presented in this chapter reveal wide variation in per capita circulation and per cent of registered borrowers. Among the states, loans varied from one-third of a volume to more than 9 volumes per capita and among the counties of Illinois (excluding the counties without any public library service), from one-third of a volume to 8.6 volumes per capita. The average for the nation was 3.67, and the total circulation was a little under one-half billion volumes.

Statistics concerning the per cent of registered borrowers are less satisfactory as a measure of use than those concerning per capita circulation because they are not as carefully recorded. They show a variation of from 2 per cent of the population of Mississippi to nearly a third of the inhabitants of California. A total of 26,000,000 individuals were registered as patrons of public libraries, not including the two or three million served by state and federal library agencies. In spite of the impressive numbers of total volumes circulated and the large per cent of population registered as patrons, this chapter adds to the evidence that thousands of communities throughout the nation are deprived of the benefits which are supposed to flow from the public library because no library is to be found within them.

#### CHAPTER V

# LIBRARIES FOR HIGHER EDUCATION REFERENCE, AND RESEARCH

IN EUROPE, libraries are usually grouped in four major classes: (1) general (including national), university, and large scholarly libraries; (2) special libraries of institutes, learned societies, and governmental administrative bodies; (3) great municipal libraries; and (4) popular libraries. The first three are thought of as scholarly, or administrative, and are organized and administered almost exclusively for the scholar or governmental administrator for purposes of reference and research. The popular library, on the other hand, is intended for the general public, and its organization and administration are directed in such a way as to serve general, rather than scholarly, purposes.

An equally clear-cut distinction between the public library in the United States and other libraries cannot be made, as the public library, especially in case of the larger public library, serves the scholar as well as the general public, and in many instances college, university, state, and governmental libraries serve the general public as well as their special clienteles. In this chapter, therefore, consideration will be given to the distribution of all libraries, including public libraries, whose primary functions are to serve the student, scholar, investigator, public administrator, industrialist, or others who require extensive and highly specialized materials. Attention is also given to the concentration of materials and bibliographical resources in centers where geographical location adds to the significance of the materials themselves. Specifically, consideration will be given in sequence to: (1) major concentrations of library materials;

<sup>&</sup>lt;sup>1</sup> Institut International de Coopération Intellectuelle, Rôle et formation du bibliothécaire (Paris: Institut International de Coopération Intellectuelle, 1935), p. 57.

(2) special bibliographical apparatus; (3) depositories for federal documents; (4) college and university libraries; and (5) special libraries which serve industry or other special purposes.

#### LIBRARY CENTERS

In 1900, the United States possessed no library of 1,000,000 volumes.<sup>2</sup> The Library of Congress collection numbered 995,166 books and pamphlets, and that of Harvard University, 576,950 volumes and 458,361 pamphlets. The Library of Congress and the major university libraries, as contrasted with the national and major university libraries of Europe were notably lacking in manuscripts, incunabula, and other early printed books and materials which related to the ancient and medieval civilizations. Thousands of books and journals fundamental to scholarship and scientific investigation had to be consulted abroad because copies of them were not to be found in the libraries of the country.

In 1934–35, thirteen libraries in the United States contained 1,000,000, or more, volumes.<sup>3</sup> The Library of Congress numbered 4,992,510 printed volumes and pamphlets, 1,131,747 volumes and pieces of music, 534,642 prints, 1,319,697 maps and views, and 540,000 volumes deposited in it by the Smithsonian Institution.<sup>4</sup> The New York Public Library, with its great resources of the original Public Library and the Astor, Lenox, and Tilden foundations combined, stood second in the list with 3,730,337. Harvard was third with 3,696,620, Yale was fourth with 2,445,682 volumes, and the Cleveland Public Library was fifth with 1,919,343 volumes.

In addition to these great collections, the public libraries of Boston, Brooklyn, Cincinnati, Chicago, and Los Angeles, and the university libraries of Columbia, Chicago, and Illinois had passed considerably beyond the million mark, and large spe-

<sup>&</sup>lt;sup>2</sup> The International Yearbook, 1900 (New York: Dodd, Mead and Company, 1901).

<sup>3</sup> The American Library Directory, 1935 (New York: R. R. Bowker Company, 1935).

<sup>&</sup>lt;sup>4</sup>U.S. Library of Congress, Report of the Librarian of Congress for the Fiscal Year Ending June 30th, 1935 (Washington: Government Printing Office, 1935), pp. 13, 264.

TABLE 37\* SEVENTY-SEVEN LIBRARY CENTERS, OF NOT OVER 50 MILES RADIUS (AIRLINE) CONTAINING 500,000 VOLUMES, OR MORE

City	Rank	Volumes in Area	City	Rank	Volumes in Area
New York City, N.Y.	ı	12,910,623	Augusta, Me	39	989,944
Washington, D.C	2	11,744,966	Des Moines, Iowa	40	972,814
Boston, Mass.	3	10,709,614	Dayton, Ohio	41	955,198
Chicago, Ill	4	6,691,144	Corvallis, Ore	42	903,154
Los Angeles, Calif.	5	6,564,016	Harrisburg, Pa	43	902,802
Philadelphia, Pa	6	4,805,252	Akron, Ohio	44	799,509
Cleveland, Ohio	7	3,835,889	Lansing, Mich.	45	797,736
San Francisco, Calif.	8	3,558,191	Nashville, Tenn.	46	
Newark, N.J	ا و ا	2,955,827	Kansas City, Mo.:	40	791,242
New Haven, Conn	IO	2,868,781	Kansas City, Kans.		=00 0a=
Providence, R.I.: Fall		-,000,701	T 11 3.5	47	788,837
River; New Bedford,			Austin, Tex	48	784,843
Mass	11	2,607,138		49	783,391
Baltimore, Md.	12		Bethlehem, Pa	50	783,274
Minneapolis, Minn.		2,477,779	Concord, N.H	51	782,818
St. Louis, Mo	13	2,475,322	Grand Rapids, Mich.	52	775,680
Princeton, N.J.	14	2,269,662	Portland, Ore	53	759,320
Pittsburgh, Pa.	15	2,150,512	Atlanta, Ga	54	715,842
0 . 0	16	2,136,108	Columbia, Mo	55	715,829
	17	2,099,229	New Orleans, La	56	702,703
Cincinnati, Ohio.	18	2,066,825	Syracuse, N.Y	57	695,565
Albany, N.Y.	19	1,902,574	Hartford, Conn	58	691,217
Columbus, Ohio	20	1,813,637	Iowa City, Iowa .	59	679,405
Milwaukee, Wis	21	1,565,732	Springfield, Ill	60	667,247
San Jose; Stanford,			Richmond, Va	61	651,842
Calif	22	1,555,791	Bakersfield, Calif	62	641,660
Sacramento, Calif.	23	1,534,107	Toledo, Ohio	63	620,711
Rochester, N.Y	24	1,515,438	Poughkeepsie, N.Y	64	613,535
Detroit, Mich	25	1,404,736	Bridgeport, Conn	56	607,834
Madison, Wis	26	1,341,899	Peoria, Ill	66	607,659
Buffalo, N.Y	27	1,341,455	Montpelier, Vt	67	607,570
Worcester, Mass	28	1,315,636	Oklahoma Ćity, Okla.	68	604,140
Γopeka, Kan	29	1,293,901	Lexington, Ky	69	578,806
Indianapolis, Ind	30	1,266,031	Dallas, Tex	70	570,746
Ithaca, N.Y	31	1,264,920	Louisville, Ky.	71	537,494
Denver, Colo	32	1,212,159	Waterbury, Conn	72	529,378
Urbana, Ill	33	1,184,928	Hanover, N.H	73	523,64I
Chapel Hill; Durham,	33	-,104,920	Utica, N.Y		
N.C	34	1,091,858	Lafayette, Ind	74	514,373
Ann Arbor, Mich	35	I,074,274	Birmingham, Ala	75	513,855
Seattle, Wash	36	1,064,818	San Diego, Calif	76	508,381
Lincoln, Neb.	- 1	, ,	Dan Diego, Cani	77	500,383
Fresno, Calif	37	1,031,052	Total		-0 06- 6-6
ricono, Cani	38	995,404	Total	1	38,867,606

<sup>\*</sup>Source The American Library Directory, 1035 (N.Y. R. Bowker Co., 1935), supplemented by Spec. Libs. Assoc., Spec. Com., Special Libraries Directory of the United States and Canada, 1935 (N.Y.: Spec. Libs. Assoc., 1935); U.S. Off. Educ., Biennal Survey of Education in the United States, 1930-32, chap. iii, Bull 1933, No. 2 (Wash. Govt. Print. Off., 1955), Patterson's American Educational Directory (Chic. Amer Educ. Co., 1935)

The specifications used in computing this table are too long for inclusion. In general, the area included does not cover more than 50 miles (airline) from center. When a city could be attached to more than one center, the total number of volumes in the area and transportation facilities were considered in allocating it Public or college libraries of less than 20,000 volumes and special libraries of less than 5,000 volumes were not included. State lines were not crossed except in special cases. Centers such as Newark were mained separately. No city was chosen as a center unless it contained one library having at least 75,000 volumes. Preference was given to state capitals, or cities in which state universities are located. Metropolitan areas were selected unless the library center would fall elsewhere.

cialized libraries, such as the Folger, Huntington, Crerar, Newberry, and John Carter Brown libraries, had brought to the use of American scholars a body and range of materials which tremendously reduced the difference between American and European libraries, even in the fields which have generally been of interest to the historian, the student of literature, and the paleographer. And this difference is being still further reduced by the rapid acquisition of such materials through photostat and film.

The distribution of these great collections has followed, in general, the pattern of growth in the fields of higher education and metropolitan concentration. Consequently, if public, college, university, and special libraries are thought of in relation to a metropolitan or other area with a radius of approximately fifty miles, it is found that there are at least 77 centers in the United States which, if the total resources of the major libraries in or near them are combined, contain 500,000 volumes, or more.<sup>5</sup>

Of the 77 such centers, New York has the largest number of volumes, 12,910,523. Washington ranks second with 11,744,-966, and is followed by Boston with 10,709,614 volumes. Chicago and Los Angeles have more than 6,500,000 volumes each. The smallest center is San Diego, California, which falls just within the 500,000 limit. Table 37 and Figure 34 show the location and size of these centers.

Table 38 and Figure 35 summarize the information concerning the number of centers, the number of volumes, the population, and the number of volumes per capita, by regions. The Northeast has the greatest number of centers, volumes, and total population. The Far West has the highest per capita holdings. The range is from 2.18 in the Far West to 0.22 in both the Southeast and Southwest. The District of Columbia is treated separately and shows the very high per capita holdings of 24.12.

<sup>&</sup>lt;sup>5</sup> Data compiled from *The American Library Directory*, 1935; Special Libraries Association, Special Committee, Special Libraries Directory of the United States and Canada, 1935 (New York: Special Libraries Association, 1935); and from other minor sources.

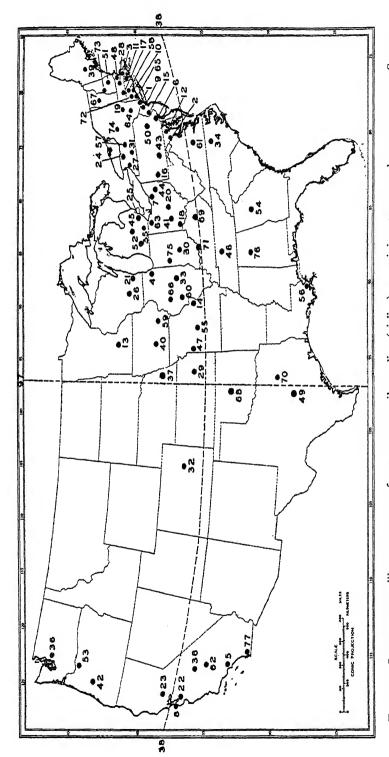


Fig. 34.—Seventy-seven library centers, of not over 50 miles radius (airline), containing 500,000 volumes, or more. Source: Same as for Table 37. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

If the map of the United States is divided into four quarters by lines running north and south along the 97th meridian, and east and west along the 38th parallel, as in Figure 34, it will be

**TABLE 38\*** Number, per Region, of Library Centers Containing 500,000 VOLUMES, OR MORE, AND VOLUMES PER CAPITA

			Volum	ES
Region	CENTERS	Population	Total	Per Capita
Far West Northeast Midwest Northwest Southwest Southeast District of Columbia	10 28 24 3 3 8	8,285,491 38,026,202 33,961,444 7,384,497 9,079,645 25,550,895 486,869	18,076,844 62,087,680 35,884,559 3,537,112 1,958,277 5,578,168 11,744,966	2.18 1.63 1 06 0.48 0 22 0.22 24 12
Total	77	122,775,046	138,867,606	1.13

\*Source: Table 37; U.S. Bur. For. Dom. Comm, Statistical Abstract of the United States, 1935 (Wash: Govt Print Off, 1935), p. 5.

U.S. total, 138,867,666 vols.; U.S. mean, 1.13 vols.

This table includes the District of Coumbia which, with its total number of volumes, population, and per capita holdings, is not included in the data for the Northeast region in which the center is located. If data are included, the total number of centers in the region is increased to 29, the total number of volumes to 73,832,646, the total population to 38,513,071, and the number of volumes per capita to 1.94 Only volumes contained in libraries within the centers are included in the totals.

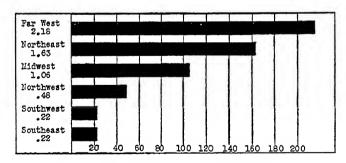


Fig. 35.—Regional summary of volumes per capita in library centers containing 500,000 volumes or more.

seen that the heavy concentration of these library centers is in the northeast quarter. If the District of Columbia is included, this quarter leads with 57 centers and 113,158,458 volumes; the southwest quarter is second, with 8 centers and 15,202,976 volumes; the northwest quarter has 5 centers, and 5,473,558 volumes; and the southeast quarter has 7 centers and 5,032,614 volumes. The significance of these centers for scholarship and research requires no comment. They constitute one of the nation's greatest scholarly resources, and through them investigation and technological advance are greatly furthered. The unevenness of their distribution, however, places severe limitations upon investigation in certain parts of the nation.

# RESOURCES FOR RESEARCH

The concentrations of library materials in the centers indicated in Table 37 and Figure 34 (Seventy-seven library centers, of not over 50 miles radius [airline], containing 500,000 volumes, or more), may be conceived of as representing basic materials for the use of scholars in research, although many of the volumes included might not be useful for that purpose. It would be of great value to scholars to know about the location and character of materials of this general nature. Interest in this subject was heightened in 1937 by the introduction of a bill, by Representative Ross Collins, providing for the establishment of five national regional libraries at New York, Chicago, Memphis, Denver, and San Francisco, one function of which might logically be to supplement the resources of research for the respective regions.

Table 39 shows the distribution of volumes in (1) all state libraries, (2) public libraries of over 250,000 volumes, (3) general college and university libraries of over 75,000 volumes, (4) technical college libraries of over 25,000 volumes, and (5) all other special research collections. The idea of concentration of special materials is emphasized by selecting collections on this basis, inasmuch as concentration and selection are fundamental in libraries of this nature, in contrast with the case of more general collections.

<sup>&</sup>lt;sup>6</sup> U.S. Congress, House of Representatives, *H.R.* 3699, Bill introduced by Ross Collins, January 26, 1937. 75th Cong., 1st Sess. (Washington: Government Printing Office, 1937).

The value of such a table, however, would be greatly increased if it could be accompanied by special descriptions of materials such as those of the American Library Association Commit-

TABLE 39\* VOLUMES IN RESEARCH LIBRARIES, 1935

State	Rank	Volumes	State	Rank	Volumes
New York	I	19,499,437	Kentucky	25	840,336
Massachusetts .	2	10,780,966	Maine	26	839,854
California	3	9,661,095	New Hampshire	27	749,145
Ohio	4	7,762,584	Louisiana	28	718,453
Illinois	5	7,427,615	Nebraska	29	574,449
Pennsylvania	6	6,640,464	Georgia	30	516,736
Connecticut	7	3,336,899	Oklahoma	31	481,877
Missouri	8	3,273,524	Alabama	32	456,589
Michigan	9	3,062,294	West Virginia	33	405,235
New Jersey	10	2,763,657	Arizona	34	349,257
Minnesota	ΙI	2,557,529	Vermont	35	332,998
Wisconsin	12	2,451,290	Arkansas	36	310,503
Maryland	13	1,946,840	South Carolina	37	306,728
Indiana	14	1,787,511	Utah	38	305,562
Texas	15	1,475,574	North Dakota	39	290,154
Oregon	16	1,470,870	South Dakota	40	264,166
Colorado	17	1,423,193	Montana	4I	228,550
Iowa	18	1,360,502	Idaho	42	208,100
Washington	19	1,292,083	Wyoming	43	133,111
Rhode Island	20	1,281,516	Delaware	44	119,033
Kansas	21	1,168,087	Nevada	45	116,500
Virginia	22	1,042,974	New Mexico	46	109,116
Tennessee	23	982,420	Mississippi	47	93,385
North Carolina	24	880,423	Florida	48	30,820

\*Source: The American Library Directory, 1935.
U.S. total (not including District of Columbia), 104, 109,951; U.S. total per capita, 0.85.
Research libraries include: (1) all state libraries, (2) public libraries of over 250,000 volumes,
(3) general college and university libraries of over 75,000 volumes, (4) technical college libraries of over 25,000 volumes, and (5) all other research collections.

tee on Resources of Southern Libraries, the handbooks of the libraries of Harvard University, of the state of Texas, and Richardson's catalog of special collections.7 This table empha-

<sup>&</sup>lt;sup>7</sup> American Library Association, Committee on Resources of Southern Libraries, "Summary of Information on Southern Research Libraries" (Mimeographed; 1935); [A. C. Potter] The Library of Harvard University: Descriptive and Historical Notes (4th ed., Cambridge: Harvard University Press, 1934); Texas Library Association,

sizes again the heavy concentration of research materials in the Northeast and the Midwest. The numbers of volumes by regions range from 48,696,044 in the Northeast, 29,682,849 in the Middle West, 12,540,495 in the Far West, 6,179,367 in the Southeast, 4,595,372 in the Northwest, to 2,415,824 in the Southwest. The table does not include the libraries of the District of Columbia, which contained, in 1935, 12,587,133 volumes. These, including the Library of Congress and other highly specialized collections, are predominantly of a research character.

### BIBLIOGRAPHICAL CENTERS

The year 1900 also marks, approximately, the beginning of the printing of cards by the Library of Congress, and of the extensive concentration of bibliographical apparatus in a number of important library centers. By printing cards for its own holdings and making copies of them available to other libraries through purchase, the Library of Congress not only laid the foundation for its own great bibliographical tool, the Union Catalog, but the foundation for other less extensive collections that have been developed in other regions. It also stimulated other libraries to print and exchange cards of their collections and thereby furthered the movement through which the location and bibliographical description of library materials are made available to scholars in every part of the nation.

Quite logically, one of the most extensive concentrations of bibliographical apparatus in the United States is that possessed by the Library of Congress, of which the most important single part is the Union Catalog. This great finding list, made possible in part by a special grant from John D. Rockefeller, Jr., of \$250,000 and by the co-operation of many libraries, was completed in 1932 and is being continued by means of Library of

Handbook of Texas Libraries, Number Four, 1835–1936 (Houston: Texas Library Association, 1935); E. C. Richardson, An Index Directory to Special Collections in North American Libraries (Provisional ed.; Yardley, Pa.: F. S. Cook and Son, 1927).

<sup>&</sup>lt;sup>8</sup> D. S. Hill, *The Libraries of Washington* (Chicago: American Library Association, 1936), p. 246.

Congress funds and the assistance of co-operating libraries. Unlike others of the great bibliographical tools which are in printed form, the Union Catalog is in card form and

combines in one author alphabet all holdings of the Library of Congress, together with selected holdings of over six hundred libraries whose contributions ranged from a few entries to complete records of their collections. Its total resources amount to more than 15,000,000 card entries, 9,000,000 of which represent book locations in the United States and Canada. (The symbols used in designating holding libraries have been selected mainly from the Union List of Serials, and adapted to the special requirements of the Union Catalog.) The remaining 6,000,000 cards comprise a number of separate instruments, including the Index to Special Collections, bibliographies of special subjects, catalogs of foreign libraries (such as the British Museum Catalog, now in process of being reduced to card form, and a card catalog of the Vatican Library), and over 2,000,000 cards which form the basis of a future subject catalog. The most important of these auxiliary lists is the Index to Special Collections, representing over 5,000 collections and arranged alphabetically by subject, locality, and name of collection. <sup>10</sup>

Next in importance to the bibliographical apparatus of the Library of Congress are the bibliographical holdings of a dozen or more public, university, and special libraries of the country, in which are to be found depository sets of the cards printed by the Library of Congress, supplemented not only by the cards of the institution in which the depository set is located but by those of other libraries which print similar cards and maintain such collections. Cards of this character have been printed by a number of university libraries such as Harvard, Chicago, Michigan, and Illinois, by special libraries such as the Newberry and John Crerar libraries of Chicago, and by foreign libraries such as the Prussian State Library and the Vatican Library, and

<sup>9</sup> Bibliographical Society of America, Census of Fifteenth Century Books Owned in America.... (New York: The Society, 1919); Union List of Serials in Libraries of the United States and Canada, Winifred Gregory, ed. (New York: H. W. Wilson Company, 1927); Supplement January, 1925 to June, 1931, edited by Gabrielle E. Malikoff, 1931; Supplement July, 1931 to December, 1932, edited by Gabrielle E. Malikoff, 1933; List of the Serial Publications of Foreign Governments, 1815-1931, Winifred Gregory, ed. (New York: H. W. Wilson Company, 1932); "Union List of Newspapers in the Libraries of the United States and Canada," now being compiled at the Library of Congress under the direction of Winifred Gregory.

<sup>&</sup>lt;sup>10</sup> Ernest Kletsch, "The Union Catalog of the Library of Congress: History, 1901–1936" (Mimeographed; April 2, 1936).

when added to the cards of a given institution and the Library of Congress, form an invaluable finding list for the use of local scholars.

The development of the kind of bibliographical apparatus just described has usually been undertaken by a single institution. Within recent years, particularly during the depression years, such union lists have been developed through the cooperation of a number of libraries within a region. The nature of the catalog is the same, only it is developed through co-operation and serves the scholars of a center or a region rather than of a single institution or library. The libraries of the University of North Carolina and Duke University began such a co-operative undertaking in 1935.11 Each library contains a set of the main entry cards of the other. In addition, other libraries in North Carolina are collaborating in developing a union catalog located at the University of North Carolina. Libraries in the metropolitan areas of Philadelphia<sup>12</sup> and Cleveland<sup>13</sup> have developed union catalogs covering the contents of two hundred or more libraries, and provision has been made for the continuation of the lists after the task of first compilation is completed. These libraries have been assisted by the Emergency Relief or Works Progress Administration of the federal government. Similar cooperation by libraries in Atlanta, Nashville, Austin, and Denver is underway. Still other union lists covering only one field, as newspapers, or medicine, have been developed, as in Chicago, for the use of scholars and physicians within the region or more limited area. This kind of co-operation, when coupled with the interlibrary loan service which usually prevails throughout the country, makes the speedy exchange of information and books possible and to that extent greatly facilitates all forms of scholarly research. Such regional bibliographical ap-

<sup>&</sup>lt;sup>12</sup> R. B. Downs and Harvie Branscomb, "A Venture in University Library Cooperation," *Library Journal*, LX (1935), 877-79.

<sup>&</sup>lt;sup>12</sup> Paul Vanderbilt, "The Philadelphia Union Catalog," Louis R. Wilson, ed., *Library Trends* (Chicago: University of Chicago Press, 1937), pp. 200–234.

<sup>&</sup>lt;sup>13</sup> R. C. Binkley, Manual on Methods of Reproducing Research Materials (Ann Arbor: Edwards Bros., Inc., 1936), pp. 158-59.

paratus is especially required in the Southeast, the Southwest, the Northwest, and the Far West, where the centers with large holdings are comparatively few and small, and where the distance to other centers and to the Library of Congress is great.

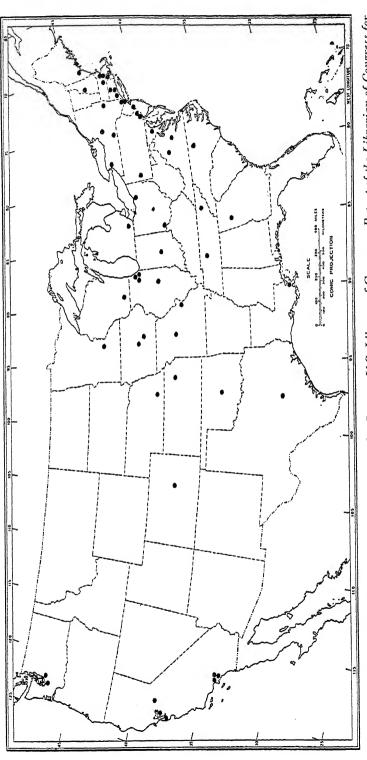
Figure 36 shows the location of fifty-five Library of Congress card depository sets where copies of all main author cards published by the Library of Congress are to be found. Until 1936 there was no such depository set in the Rocky Mountain area. The Southeast has five, the Southwest, two, the Far West, six, the Northwest, one, the Midwest, sixteen, and the Northeast, eighteen. Regional union catalogs based upon these sets have been developed, or are being developed, at Philadelphia, Cleveland, Chapel Hill-Durham, Nashville, Atlanta, Austin, and Denver, and the number of libraries co-operating varies in each center from a comparatively few at Chapel Hill and Nashville to approximately 150 at Philadelphia.

# DEPOSITORIES FOR FEDERAL DOCUMENTS

The documents issued by local, state, and national governments form a very important part of the resources for investigation in the social sciences. To facilitate the building up of collections of materials of this nature, the federal government has for many years designated certain libraries as depositories to receive all or parts of its publications. The number of such libraries in 1933 was 499. Since 1931, the Social Science Research Council and the American Library Association have undertaken to provide centers which assume responsibility for the collection of national, state, and local documents as well. As a result of the work of the American Library Association's Committee on Public Documents, at least one document center has been designated in every state, the field has been so divided among libraries that documents in the various categories

<sup>&</sup>lt;sup>14</sup> Cf. U.S. Government Printing Office, Annual Report of the Public Printer, 1933 (Washington: Government Printing Office, 1934), p. 49. "Only 94 libraries (of the 499) selected all classes of government publications available for depositories."

<sup>&</sup>lt;sup>15</sup> "Committee on Resources," American Library Association, Bulletin, XXVI (1932), 553-55.



F16. 36.—Depositories for Library of Congress cards. Source: U.S. Library of Congress, Report of the Librarian of Congress for the Fiscal Year Ending June 30, 1936 (Washington: Government Printing Office, 1936). (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

are being systematically collected and made accessible to students, and a series of monographs has been issued, dealing with these collections and their use. <sup>16</sup> Although the distribution of federal documents has been provided on a basis which brings such materials within the range of students in all sections of the country, revision of the provisions under which they are distributed could easily extend and increase their effectiveness.

# COLLEGE AND UNIVERSITY LIBRARIES

The establishment of the college library in America is antedated only by the private collections of the few colonists who brought books to America with them prior to 1636. Harvard College was founded in that year, and the first college library in America was begun two years later. Prior to the Revolution, nine college libraries were established along the eastern seaboard.<sup>17</sup>

Today, every institution of higher education largely centers its work of instruction and investigation in the library. Books on the administration of the library, 18 standards for its effective operation, 19 courses on its use by students, and efforts on the part of college and university administrators, instructors, and librarians are directed towards enabling the library to function appropriately in the attainment of college and university educational objectives. Carefully planned buildings are designed to aid in this undertaking, and endowment funds and annual appropriations to maintain effective service are generally provided.

The character of the book collection has also received increasingly careful consideration.<sup>20</sup> Its size, the number of volumes es-

<sup>&</sup>lt;sup>16</sup> American Library Association, Committee on Public Documents, *Public Documents: 1934; 1935; 1936* (Chicago: American Library Association, 1934; 1936; 1936).

<sup>&</sup>lt;sup>17</sup> Louis Shores, Origins of the American College Library, 1638–1800 (Nashville: George Peabody College, 1934).

<sup>&</sup>lt;sup>18</sup> W. M. Randall and F. L. D. Goodrich, *Principles of College Library Administration* (Chicago: American Library Association and University of Chicago Press, 1936).

<sup>&</sup>lt;sup>19</sup> Douglas Waples, et al., The Library ("Evaluation of Higher Institutions," No. 4; Chicago: University of Chicago Press, 1936).

<sup>&</sup>lt;sup>20</sup> C. B. Shaw, comp., A List of Books for College Libraries (2d ed.; Chicago: American Library Association, 1931); F. E. Mohrhardt, comp., A List of Books for Junior College Libraries (Chicago: American Library Association, 1937).

sential to support individual courses, the number and character of journals, the building up of special materials for research<sup>21</sup> by the various departments and schools, the accumulation of photostats and films<sup>22</sup>—all these have been steadily kept in mind, as will be further revealed in the tables and figures which follow, dealing both with the number of volumes in college and university libraries and with the amount which is expended for them.

In 1935, 6,235 public libraries reported the possession of 100,470,215 volumes and a total expenditure for operating expenses, including salaries, books, and other maintenance charges, of \$45,855,400. They served registered borrowers who were estimated by the American Library Association to number 26,000,000, and to whom they loaned a total of 449,998,845 volumes.<sup>23</sup>

In 1932, the U.S. Office of Education published corresponding figures for college and university libraries for the year 1931–32. In that year, 1,460 universities, colleges, professional schools, and teacher training institutions possessed libraries containing 52,919,063 bound volumes, spent \$11,379,044 on their maintenance (books and permanent equipment not included), and made them available to a clientele of 1,154,117 students and 100,789 instructors. The expenditures represented an increase of \$1,757,486, or 18.3 per cent, over the corresponding item for 1929–30, and came to 2.7 per cent of the total<sup>24</sup> of all educational and general expenditures.<sup>25</sup>

- <sup>22</sup> M. L. Raney, "The University Libraries," Vol. VII of the *University of Chicago Survey* (Chicago: University of Chicago Press, 1933).
- <sup>22</sup> M. L. Raney, ed., *Microphotography for Libraries* (Chicago: American Library Association, 1936).
- <sup>23</sup> "Public Library Statistics," American Library Association, Bulletin, XXIX (1935), 252-53, 443.
- <sup>24</sup> Books are not included in this total or per cent of the educational budget, but, with permanent equipment, are classed as capital outlays. Inasmuch as books are usually considered to represent 40 per cent of the expenditure of a university library, the total expenditures for all library purposes, including books, may be estimated at \$18,965,067, or 3.78 per cent of the educational budget.
  - 25 U.S. Office of Education, Biennial Survey of Education, 1930-1932, chap. iii.

TABLE 40\*

Volumes in College and University Libraries per Capita Population 20–24 Years of Age, 1932

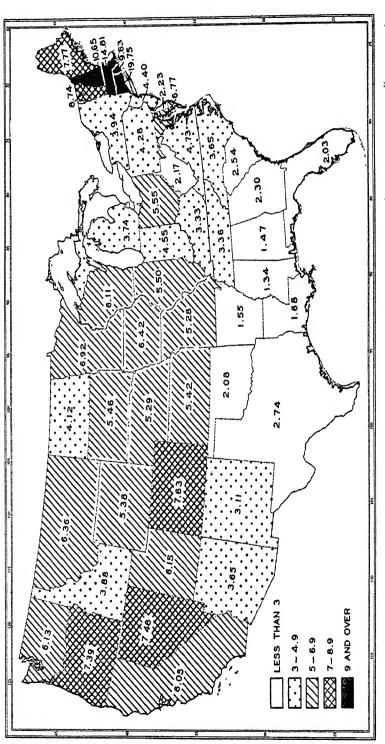
_	_	Volum	MES	Standard
State	RANK	Total	Per Capita	Score
Connecticut	I	2,604,579	19 75	4 31
Massachusetts	2	5,117,588	14 81	2 83
New Hampshire	3	371,434	10 65	I 59
Rhode Island	4	545,730	9 63	1 29
Vermont	5	243,276	8 74	I 02
Maine	6	470,473	7 77	o 73
Colorado	7	663,382	7 63	0 69
Nevada	8	54,337	7 46	0 64
Oregon	9	576,173	7 39	0 62
Minnesota	10	1,482,993	6 92	0 48
Maryland	ΙI	986,941	6 <del>7</del> 7	0 43
Iowa	12	1,292,158	6 42	0 33
Montana	13	278,356	6 36	0 31
Utah	14	283,371	6 15	0 25
Washington	15	798,928	6 13	0 24
Wisconsin	16	1,492,432	6 11	0 24
California	17	2,872,990	6 05	0.22
Ohio	18	3,133,438	5 55	0 07
Illinois	Ιq	3,715,446	5 50	0 05
South Dakota.	20	325,161	5 46	0 04
Kansas	21	880,337	5 42	0 03
Wyoming	22	110,039	5 38	0 02
Nebraska	23	639,382	5 29	-o oı
Missouri	24	1,655,379	5 28	-o oı
Virginia	25	1,030,175	4 73	-o 18
Indiana	26	1,210,979	4 55	<b>−</b> o 23
New Jersey	27	1,540,906	4 40	-o 27
Pennsylvania	28	3,482,933	4 28	-0.31
North Dakota	29	254,539	4 12	-o 36
New York	30	4,491,043	3 94	-0 41
Idaho	31	145,323	3 88	-0 43
Michigan	32	1,564,787	3.74	-0 47
Arizona	33	147,779	3 65	-0 50
North Carolina	33	1,112,826	3 65	-o 50
Tennessee	35	834,187	3 36	-0 59
Kentucky	36	738,171	3 33	-0.59
New Mexico	37	117,721	3 11	-0.66
Texas	38	1,589,030	2 74	-o 77
South Carolina	39	422,399	2 54	-0.83
Georgia	40	663,677	2 30	-0 90
Delaware	4I	44,923	2 23	-0 92
West Virginia	42	333,646	2 17	-0 94
Oklahoma	43	479,671	2.08	-0 97
Florida	44	280,445	2 03	-0 98
Louisiana	45	346,878	1.68	-1.09
Arkansas	46	272,423	I 55	-1.13
Alabama	47	380,669	I 47	-1.15

<sup>\*</sup> Source. U.S. Off. Educ., Biennial Survey of Education, 1930-1932, chap. 1ii, pp. 118-19. Mean per capita (based on means of the 48 states), 5 32; standard deviation, 3.348; U.S. total, 52,919,-053; U.S. volumes per capita (including District of Columbia), 4.87.

Table 40 and Figures 37 and 38 show the number of volumes in college and university libraries per inhabitant 20-24 years of age for each state and region. From the table, it is apparent that states which have the most volumes also tend to make the largest expenditures for library support, although the Far West and the Southwest, which have been settled more recently than the eastern seaboard and the Midwest, are making relatively larger expenditures to make up for the newness of their collections. Connecticut, Massachusetts, and New Hampshire have the greatest number of volumes per inhabitant 20-24 years of age, and Mississippi, Alabama, and Arkansas, the smallest. The range is from 19.75 to 1.34. In the Northeast, Connecticut leads with 19.75 per capita, and West Virginia ranks lowest with 2.17. In the Far West, Nevada stands first with 7.46, and California lowest with 6.05. In the Midwest, Minnesota ranks highest with 6.92, and Michigan lowest with 3.74. Within the Northwest, Colorado ranks first with 7.63, and North Dakota lowest with 4.12. In the Southwest, Arizona stands highest with 3.65, and Oklahoma lowest with 2.08. In the Southeast, Virginia ranks first with 4.73 and Mississippi last with 1.34.

The Northeast, Far West, and Northwest all have at least twice as many volumes per capita as do either the Southwest or Southeast. And, as has been shown in chapter ii, these inequalities tend to perpetuate themselves even though the per cent of increase in holdings may be greater in those regions in which, at present, collections are relatively small. This is strikingly illustrated by Table 41 which shows the number of volumes in a number of college and university libraries in 1935–36, the number of volumes added in that year, the amount expended for books and the average annual increase in volumes from 1926.<sup>26</sup> The collections of the Midwest and Far West universities have also been built up much more rapidly than those of the Southeast, although the latter are much older than the former. The growth of all libraries in the higher educational

<sup>&</sup>lt;sup>26</sup> J. T. Gerould, comp., "Statistics of University Libraries, 1925–35" (Mimeographed); J. A. McMillen, comp., "Statistics of Southern University Libraries, 1925–36" (Planographed).



Source: Same as for Fig. 37.—Volumes in college and university libraries per capita population 20–24 years of age, 1932. Table 40. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

field, however, as the opening paragraphs of this chapter indicated, has been steady. It has undoubtedly contributed greatly to the advance in American scholarship.

# THE CENTER OF POPULATION FOR HIGHER EDUCATIONAL LIBRARIES IN THE UNITED STATES, 1870–1930

In chapter i, the centers of population with library service, without library service, of general population, of public libraries, and of all libraries were presented in Figure 10, prepared by W. C. Eells of Stanford University. In Figure 39, similar centers are computed by Mr. Eells for normal schools, privately

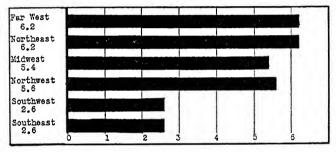


Fig. 38.—Regional summary of volumes in college and university libraries per capita population 20–24 years of age, 1932.

and publicly controlled colleges and universities, and for higher education, or total enrolment of institutions of higher education. These, in turn, are generally related to the centers of population for the corresponding period. During the sixty-year period the center of actual population has moved slowly westward along the 39th parallel. The center of total enrolment has extended along a longer line to the north, while the actual centers of college library volumes have been above the 40th parallel. The center of volumes in privately controlled libraries is near the center of Ohio, whereas the center of volumes in publicly controlled libraries is just below the 40th parallel in northwestern Missouri. The center for normal schools ranged still higher above the 40th parallel until 1930, when it dropped perpendicularly below the parallel in west central Illinois.<sup>27</sup>

<sup>27</sup> W. C. Eells, "The Center of Population of Higher Educational Libraries in the United States, 1870–1930," *Library Quarterly*, VI (1936), 175–81.

TABLE 41\*
Statistics of College and University Libraries, 1926–36

		Volumes		Furnamen
College or University Library	Total 1935–36	Added 1935~36	Average An- nual Increase 1926–36	Expended for Books 1935-36
Alabama	171,670	18,004	14,811	\$ 17,996 00
Arkansas	133,000	6,259	5,676	24,024 13
Brown	499,027	17,877	14,783	42,973 ∞
Bryn Mawr	154,931	4,212	3,844	19,791 46
California	944,589	31,047	27,891	93,739.41
Chicago	1,161,859	44,041	39,330	145,026.89
Colorado	262,828	-8,464	8,017	23,842 11
Columbia	1,520,089	43,633	$4^2,775$	164,323.74
Cornell	955,681	16,892	16,855	53,319 92
Dartmouth	418,451	15,808	18,345	55,822.00
Florida	122,844	7,663	9,259	9,782 28
Georgia	117,308	3,724	5,557	11,790 00
Harvard	3,795,502	132,473	117,310	242,291.52
Illinois	1,052,684	40,746	34,383	113,910.70
Indiana	292,894	10,294	10,470	28,685.43
Iowa State .	411,889	15,965	14,576	54,162.64
Johns Hopkins	481,163	9,139	18,810	38,789 95
Kansas	278,467	11,171	8,656	38,219 ∞
Louisiana State	152,605	12,730	8,243	74,538.62
Michigan	955,623	30,016	30,571	124,435 00
Minnesota	833,513	48,459	33,201	166,758.89
Mississippi	56,492	4,636	1,649	5,786 08
Missouri	333,045	15,526	9,226	29,000 00
Nebraska	305,999	9,283	9,695	41,720.76
Northwestern	533,420	26,811	25,299	67,832.16
North Carolina	325,524	20,000	14,549	41,142 ∞
North Dakota	119,235	2,636	2,792	8,241 ∞
Oberlin	363,628	8,606	8,821	18,755 ∞
Ohio	455,228	14,909	14,932	25,486.57
Oregon	269,215	10,472	10,188	23,427.09
Pennsylvania	840,495	14,458	20,543	53,176.47
Princeton	744,090	20,771	14,989	65,195.10
Rochester	297,689	17,329	13,399	62,452.79
	236,275	8,919	9,041	20,257.40
	659,897	24,024	23,938	52,002 37
Texas	509,127	17,782	12,111	49,299 30
Vanderbilt	209,512	9,228	14,788	32,672 38
Vassar	109,080	6,571	1,908	20,052 09
Virginia	201,000 265,273	5,990	5,020	17,590.00 26,761 21
Washington (St. Louis).		16,693 7,426	12,527 2,763	
Washington (Seattle)	305,515			36,112.32
Wellesley	385,809	18,860	21,114	40,518.66
Wisconsin	171,703	5,561	5,179	19,764 04
Yale	489,240	13,640	11,179	62,263 ∞
	2,558,179	113,777	72,008	144,254.00

<sup>\*</sup>Source: J. T Gerould, comp, 'Statistics of University Libraries, 1925–35" (Mimeo.), J. A. McMillen, comp., "Statistics of Southern University Libraries, 1925–36" (Plano.).

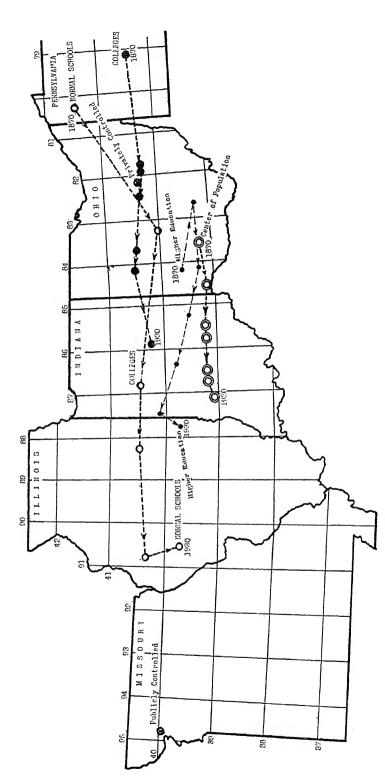


Fig. 39.—Location and movement of centers of population of higher educational libraries, 1870–1930. Source: W. C. Eells, "The Center of Population of Higher Educational Libraries in the United States, 1870–1930," Library Quarterly, VI (1936), 175–81.

# COLLEGE AND UNIVERSITY LIBRARY EXPENDITURES

Table 42 and Figures 40 and 41 show in dollars the expenditure for libraries in institutions of higher education per 1,000 population in 1931-32. There is a strong tendency for relatively high expenditures for college libraries to coincide by state and region with relatively high public library expenditures, and vice versa. Statistics of higher educational institutions require care in interpretation. The data presented on the map are for all publicly and privately supported colleges, universities, professional schools, teachers colleges, and normal schools within each state. They are adjusted to total population rather than to enrolment, partly to render the data more exactly comparable with those for public libraries and partly because of the questionable comparability of available enrolment statistics. Thus, assuming approximately the same proportion of the population of the various states to be of college age—a condition which is nearly enough true for purposes of comparison—the data presented may be considered as an index of expenditure of college libraries in proportion to the number of potential college library users, and also as an index of the relative economic burden which college libraries impose upon the areas represented. Actually, of course, the large amount of interstate migration of students and of interstate support tend partially to invalidate any comparison on a basis of states. Hence, the total population of each state probably provides as accurate a base as any for ad-\*justment of the data.

The regional summary of college and university library expenditure (Figure 41) shows that more than twice as much money in proportion to population was spent during the school year 1931–32 on college and university libraries of the Far West as was spent on those of the Southeast. It is noteworthy that this disparity is much less than was the case with public library expenditure. In the case of the Northeast, there is the possibility that a comparison between it and the other regions may be somewhat misleading. Inasmuch as college and university li-

TABLE 42\*

College and University Library Expenditures per 1,000 Population, 1931–32

		Expendit	ures†	0
State	Rane	Total	Per 1,000 Population	Standard Score
New Hampshire	1	\$ 191,453	\$411 47	4 95
Connecticut	2	407,083	253 33	2 50
Massachusetts	3	1,065,008	250 61	2 46
Oregon	4	137,118	143 76	0.80
California	5	785,329	138 33	0 72
Illinois	6	969,534	127 06	0 54
Colorado	7	123,672	119 40	o 43
Nebraska	8	164,103	119 09	0 42
New York	9	1,474,634	117.15	0 39
Iowa	10	267,619	108 31	0 25
Minnesota	ΙI	264,398	103 12	0 17
Michigan	12	486,775	100 53	0.13
Maryland	13	162,063	99 33	0 11
Montana	14	52,844	98 31	0 10
Kansas	15	183,262	97 43	0 08
Ohio	16	643,969	96 89	0 08
Virginia	17	233,709	96 50	0 07
South Dakota	18	66,312	95 71	0 06
Arizona	19	38,916	89 34	-0 04
Vermont	20	31,423	87 38	-0 07
North Dakota	21	59,389	87 23	-0 07
Nevada	22	7,341	80 62	-o 18
Utah	23	39,470	77 72	-0 22
North Carolina	24	244,454	77 11	-0 23
Indiana	25	244,999	75 65	-0.25
Idaho.	26	33,144	74 48	-0 27
3.6.	26	59,391	74 48	-0 27
	28	16,436	72 87	-0 30
Wyoming New Mexico	29	30,780	72.71	-0 30
	-	290,059	71 77	-0 31
New Jersey	30	209,186	71 18	-0 32
Wisconsin	31	108,314	69.28	-0 35
Washington	32	173,296	66.23	-0 40
Tennessee	33	222,591	61 33	-0 47
Missouri	34	143,761	60 ∞	-0 49
Oklahoma	35		59 22	-0 49 -0 51
Kentucky	36	154,849		-0 53
Texas	37	335,105	57 53	-0 53 -0 54
Pennsylvania	38	548,992 12,620	57.∞ 52.94	-0 60
Delaware	39	1	49.96	-0 65
Florida	40	73,349	49.90	-0 70
Louisiana	4I	98,177 122,838	40.72	-0 70 -0 77
Georgia	42		1	-0 77 -0 77
Rhode Island	43	28,839	41 95	-0 77 -0 79
South Carolina	44	71,269	40.99	—0 79 —0 80
West Virginia	45	69,527	40 21	-0.96
Arkansas	46	55,096 65,146	29.71 24.62	-1 04
Alabama	47 48	49,239	24.50	-1.04

<sup>\*</sup>Source: U.S. Off. Educ., Biennial Survey of Education, 1930-32, chap. iii, pp 113-14 Mean per 1,000 population (based on means of the 48 states), \$91.94; standard deviation, \$64,60; U.S. total, \$11,379,044, U.S. expenditures per 1,000 population (including District of Columbia), \$92.68.

<sup>†</sup> This does not include expenditures for new books and other equipment.

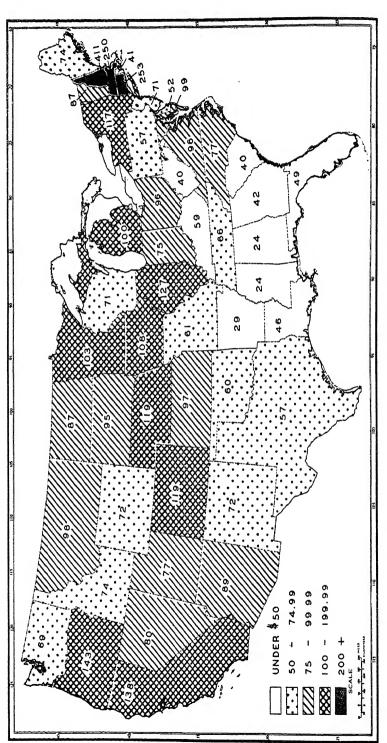


Fig. 40.—College and university library expenditures per 1,000 population, 1931-32. Source: Same as for Table 42. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

braries of the Northeast have been relatively well developed for a considerable time, as compared with those of the newer sections of the country, it may be that the expenditure of smaller sums suffices to maintain their collections than is required to build up and maintain those of the Far West. Furthermore, the proximity of extensive research collections in such libraries as those at Harvard, Yale, Columbia, and in the Boston Public Library, the New York Public Library, and the Library of Congress—an advantage lacking in other sections of the country—might well influence the policies of eastern libraries in

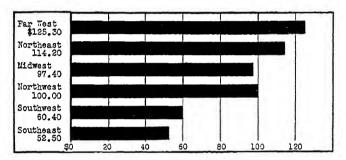


Fig. 41.—Regional summary of college and university library expenditures per 1,000 population, 1931–32.

building up their collections. It should also be borne in mind that the Northeast, on the basis of the regional classification followed in these pages, is a fairly heterogeneous region.

The data presented in Table 42 and Figures 40 and 41, while showing the amount of college and university library expenditures per 1,000 population, give no indication of the per cent of the total educational budgets of institutions which is constituted by the library expenditures. Such a per cent has, at times, been used as a standard, although no arbitrary standard has been generally accepted for judging the adequacy of expenditure. It is unfortunate that terms employed in determining per cents have not been accurately defined, and data have not been assembled on sufficiently similar bases to render them comparable. A further complication in the situation is the fact that in the case of the 1,460 libraries under review, the institutions

range from normal schools and junior colleges to professional schools and major universities. And an added difficulty is that the data for libraries collected by the Office of Education cover operating expenditures but do not include expenditures for books and permanent equipment. These are classed as capital outlays and are not specifically segregated.

In reading Table 43, it is therefore desirable that the expenditure indicated be thought of as representing approximately 60 per cent of the total library expenditures when books and equipment are included. Institutions in this general category usually give 50 per cent to salaries, 40 per cent to books, including periodicals and bindings, and 10 per cent to all other purposes. From this table it is seen that the variation is from 12.22 per cent for Clark University to 0.91 per cent for Cornell. If these per cents represented the total expenditure for library purposes, including the purchase of books, they would be increased, respectively, to approximately 20 per cent and 1.5 per cent.

In the case of libraries in 14 selected colleges and universities, Mr. Works found the range to be from 7.0 to 2.2 per cent, 28 and Mr. Randall, in a study of 205 college libraries, found the average expenditure for college libraries to be 9.3 per cent of the college's total expenditures for instructional purposes. 29 Mr. C. H. Brown found that 8 out of 45 land-grant colleges spent less in 1928 than 1 per cent of their total operating expenditures on their libraries; 20, between 1 and 2 per cent; 14, between 2 and 3 per cent; 6, between 3 and 4 per cent; and 4 spent 4 per cent or more. 30 Mr. Rosenlof found the range in per cent for six groups of teacher-training institutions to be from 1.26 to 7.59, and for all six combined 3.84. 31 Both of these

<sup>&</sup>lt;sup>28</sup> G. A. Works, College and University Library Problems: A Study of a Selected Group of Institutions (Chicago: American Library Association, 1927), Appendix.

<sup>&</sup>lt;sup>29</sup> W. M. Randall, *The College Library* (Chicago: University of Chicago Press, 1932), p. 14.

<sup>&</sup>lt;sup>30</sup> U.S. Office of Education, Survey of Land-Grant Colleges and Universities, Bulletin 1930, No. 9, I, Part VIII (Washington: Government Printing Office, 1930), 707.

<sup>&</sup>lt;sup>31</sup> G. W. Rosenlof, Library Facilities of Teacher-training Institutions (New York: Teachers College, Columbia University, 1929), p. 129.

TABLE 43\*

RATIO OF LIBRARY EXPENDITURES (OTHER THAN BOOKS AND EQUIPMENT) TO TOTAL EDUCATIONAL AND GENERAL EXPENDITURES IN THIRTY INSTITUTIONS BELONG-ING TO THE ASSOCIATION OF AMERICAN UNIVERSITIES, 1931–32

		Library Ex	(PENDITURES
Institution	Rane	Total	Per Cent of Educational and General Expenditures
Clark University.  Harvard University.  Yale University.  Princeton University.  Northwestern University.  University of Chicago†  University of Virginia.  Columbia University.	1 2 3 4 5 6 7 8	\$ 25,350 620,274 351,421 121,398 190,100 341,922 55,448 541,486	12 22 7 01 5 74 5.11 5 00 4.23 4 01 3 91
University of Texas	10 11	69,438 21,192 294,671	3.65 3 64 3.48
Stanford University University of North Carolina University of Nebraska. Johns Hopkins University University of Illinois University of California University of Kansas. State University of Iowa Indiana University.	12 13 14 15 16 17 18 19	99,795 37,233 102,803 84,297 201,223 304,341 51,246 108,960 59,795	3 43 3.25 3.22 3 14 3.01 2.93 2.84 2 47 2 30
Ohio State University University of Minnesota Washington University (St. Louis) University of Mississippi Massachusetts Institute of Tech. University of Pennsylvania Brown University‡. California Institute of Tech. University of Wisconsin. Cornell University	21 22 23 24 25 27 27 27 27 29 30	120,111 139,987 42,452 6,871 59,487 97,780 16,813 9,438 79,286 68,634	2 13 2.12 1 97 1 81 1 68 1.47 1 47 1.47 1.19

<sup>\*</sup> Source US. Off. Educ., Biennial Survey of Education, 1930-32, chap. iii, pp. 264-89.

<sup>†</sup> The per cents are supposedly only approximately 60 per cent of the total expenditures for library purposes, as books are not included

<sup>†</sup> The data for Brown seem entirely too low and altogether out of line with expenditures published elsewhere for many years. The data for Chicago, on the same basis, seem to cover books as well as operating expenditures. There may be other discrepancies, but these are so obvious that they are noted.

men considered the expenditure very inadequate. Mr. Randall has recently reviewed the expenditure of a number of college libraries in an article in which he refers to them as "Our Starving College Libraries." The North Central Association, in its recent revision of standards, departs entirely from the conventional measures of per cent of educational budget, or per student expenditure, and bases its rating of excellence principally upon the two items of expenditures for books and salaries, treating the latter so as to account for variations in enrolment.<sup>33</sup>

Marked stimulation to increase the financial support of college libraries in the United States and to provide book collections more properly adjusted to student and faculty needs has been given in recent years to liberal arts and junior colleges by the Carnegie Corporation of New York. Grants totaling \$961,000 for books were given to 81 four-year liberal arts colleges from 1928 to 1932, and \$300,000 was allocated in May, 1937, to 92 junior colleges.<sup>34</sup>

# COLLEGE AND UNIVERSITY LIBRARY CIRCULATION

In the public library field circulation and number of registered borrowers constitute the principal measures of library use. Likewise, in college and university libraries records are generally kept of circulation of reserved books and of books issued for a period of two weeks. Until within a short time the amount and character of the library's efficiency has been judged largely by such records, which have served as a kind of institutional thermometer, determining the extent and excellence of the library's service. Recently, however, additional measures have been proposed by the North Central Association of Colleges and Secondary Schools<sup>35</sup> for determining these qualities. These

<sup>&</sup>lt;sup>32</sup> W. M. Randall, "Our Starving College Libraries," *Illinois Libraries*, XVIII (1936), 219-25.

<sup>33</sup> Waples, et al., op. cit., chap. vii.

<sup>&</sup>lt;sup>34</sup> R. M. Lester, *The Development of Junior College Libraries* (New York: Carnegie Corporation of New York, 1937).

<sup>35</sup> Waples, et al., op. cit., chap. vii.

TABLE 44\* Volumes in Special Libraries per 1∞ Population, 1934

		Voluz	tes	
State	Rank	Total	Per 1∞ Population	Standard Score
Massachusetts	I	3,662,049	86.2	3 40
California	2	3,455,364	60 8	2 14
Oregon	3	547,783	57 4	1.98
Arizona .	4	200,000	45 9	1.41
New York	5	5,586,492	44 4	I 33
New Hampshire .	6	196,700	42 3	I 23
Connecticut .	7	679,537	42 2	1.22
Vermont	8	138,870	38 6	1 04
Pennsylvania	9	2,215,602	23 0	0 27
Wyoming	10	50,∞∞	22 I	0 23
Ohio	11	1,445,757	21 7	0 21
Maryland .	12	344,979	21 I	0 18
Rhode Island .	13	135,072	196	0 10
Delaware	14	39,930	16 7	-o oı
Illinois	15	1,102,122	I4 4	-0 15
Minnesota .	16	325,412	12 7	-0 24
Wisconsin .	17	304,580	10 3	-o 36
Michigan .	18	429,304	8 9	-0 43
Indiana	19	242,567	7 5	-0 49
Iowa	20	183,778	7 4	-0.50
Colorado	21	68,440	6 6	-0.54
Missouri	22	208,195	5.7	-0 58
New Jersey	23	222,477	5 5	-0.59
Montana	24	25,∞∞	46	-0 64
Louisiana	25	94,561	4-5	-0.64
Nebraska	26	61,358	4 4	-0.65
West Virginia	27	75,∞∞	4 3	-0.65
Washington	28	58,090	3.7	-0.68
Kansas	29	66,957	3.6	-0.69
Alabama	30	84,700	3.2	-0.71
Texas	31	178,417	3.1	-0 72
North Dakota	32	20,000	2.9	-0 72
North Carolina	33	88,430	2 8	-0 73
Virginia	34	66,200	2 7	-o 73
Tennessee	35	41,025	1.6	-0 79
South Carolina	36	12,000	0 7	-0 83
Georgia	37	11,500	0 4	-0 85
Arkansas	38	4,673	02	-0 86

The pamphlet material, clippings, photographs, etc., contained in these libraries constitutes a very large part of their service.

<sup>\*</sup> Source: Compiled from Spec Libs Assoc, Spec Com, op. cit., pp 1-174.

Mean per 100 population (based on means of the 38 states), 17.5; standard deviation, 20 18; US total, 27,038,113; U.S. volumes per 100 population (including District of Columbia), 24.29.

The following states were excluded, due to lack of data: Florida, Idaho, Kentucky, Mississippi, Nevada, New Mexico, Oklahoma, South Dakota, Maine, Utah.

Table includes: (1) libraries holding membership in the Special Libraries Association; (2) all other special libraries in the United States, so far as known, (3) special departments and collections in large public libraries and universities.

measures are: (1) the number of general reference books held by the library that are contained on a check list of selected titles; (2) the number of periodicals currently subscribed to from a check list of periodicals preferred by college libraries; (3) the average annual expenditure for books and periodicals during the past five years; (4) the annual expenditure for library salaries, weighted for the size of enrolment; (5) the average annual number of free loans per student; and (6) the average annual number of loans to faculty members.

Through these combined checks, supplemented by a careful examination of the integration between the library, the faculty, and the student body in the major enterprise of teaching, the college library of today undertakes to measure its effectiveness. For the university they also hold good, but additional measures of adequacy of resources and facilities for research are required.

# SPECIAL LIBRARIES

The advance in technological development since 1900 has been one of the most distinctive phenomena of American life. The automobile, the radio, air conditioning—these and a thousand other modern inventions have sprung up with amazing rapidity. This advance, in turn, has been accompanied by the development of special libraries which, while occasionally included in public and university libraries, have usually been established for particular uses under special institutional or industrial auspices.

The Special Libraries Association, founded in July, 1909, began its activities with a membership of fifty members. In 1935, the number had grown to more than 1,800, affiliated through sixteen chapters, and 1,475 special libraries were described in the third edition of the Association's *Directory*.<sup>36</sup>

Table 44 and Figures 42 and 43 indicate the distribution of these libraries on the basis of volumes per 100 population in 1934. The regional differences for this type of library are greater than for any other type so far considered. They reflect the re-

<sup>36</sup> Special Libraries Association, Special Committee, op. cit., Preface.

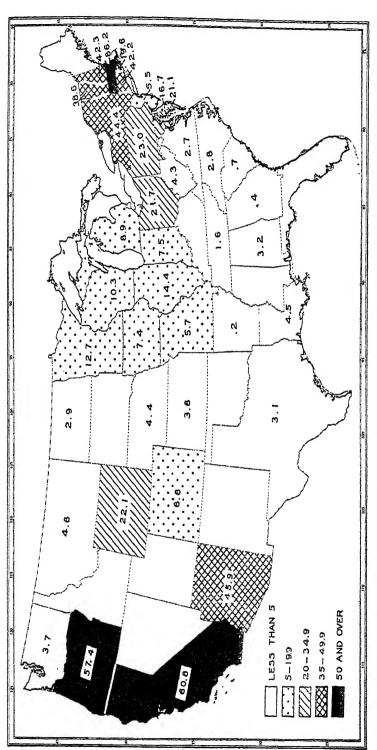


Fig. 42.—Volumes in special libraries, per 100 population, 1934. Source: Same as for Table 44. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

gional grouping referred to under college and university libraries and in a sense serve as a measure of urbanization, inasmuch as special libraries ordinarily exist only in the larger centers. The highly industrialized states of New England, the Middle Atlantic States, and the industrial areas of the Middle West share with California and Oregon in the distinction of having developed this type of library on an extensive scale, while ten states, on the basis of the data used in compiling the table,<sup>37</sup> have failed entirely to develop them. The range is from 86.2 to 0.0. The pattern of the map in this instance corresponds,

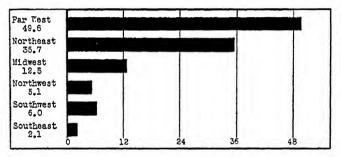


Fig. 43.—Regional summary of volumes in special libraries, per 100 population, 1934.

generally, with that of library distribution but departs rather sharply from it in several instances. According to this table, the Southeast (excluding Florida, Kentucky, and Mississippi, for which there are no data) contains 403,089 volumes; the Northeast (excluding Maine), 13,296,708; the Midwest, 4,241,715; the Northwest (excluding Idaho, South Dakota, and Utah), 291,755; the Southwest (excluding New Mexico and Oklahoma), 378,417; and the Far West (excluding Nevada), 4,061,237.

# STATE LIBRARIES

The first state libraries to be established in the United States were those of New Jersey and Pennsylvania in 1796. Since then, every state has established such a library to serve its officers in one or more capacities. In addition to this primary serv-

<sup>37</sup> Ibid, pp. 1-174.

ice, the state library, or some other library agency, has been established by the state to perform other state functions of a library character. Library extension service agencies, legislative reference libraries, state law or supreme court libraries, state archives, and historical commissions, either connected with the state library or independent of it, have been provided for these various purposes. Altogether, as reported in "Federal Relations to Libraries," there are 136 such collections, which contained in 1935 approximately 12,000,000 volumes.<sup>38</sup>

The per capita appropriations range from 0.5 cents in Texas to 10.3 cents in Nevada, with an average for the nation of 2.2 cents. The expenditures for state libraries, while actually increasing in total amount since 1915, have declined by half, when considered in relation to the per cent of state revenue which they now receive.

The total appropriations for these services, as reported in June, 1937, were: state libraries, \$1,333,441; library extension agencies, \$444,990; legislative reference, \$207,972; state law, or supreme court libraries, \$134,382; archives, \$106,959; historical commissions, \$246,520; grand total, \$2,398,054.<sup>39</sup> Detailed information concerning these expenditures is shown in Table 45.

#### FEDERAL LIBRARIES

Reference has been made in chapter i to the various types of library service rendered by the federal government through its emergency relief program since 1933. The bibliographical services of the Library of Congress, library service to the blind, the distribution of public documents to depository libraries, and other federal library services have been referred to in this and other chapters. A statement dealing specifically with the major research collections of the federal government and other types of federal library service may be made here.

<sup>&</sup>lt;sup>38</sup> American Library Association, Special Committee on Federal Relations, "Federal Relations to Libraries" (Mimeographed, 1937).

<sup>&</sup>lt;sup>39</sup> These data were prepared by Paul A. T. Noon, Director of the Ohio State Library, June 1, 1937.

TABLE 45\*

Annual Appropriations to State Library Agencies for Period Covered by Latest Budget

9b 132,990 a 11,8 7 4,000 a 11,8 7 4,000 a 11,8 6 130,235 7,647 7 6,400 8,405 8b 19,707 8,405 8c 19,707 14,146 8c 19,707 14,146 8c 19,707 14,146 8c 19,707 14,146 10,200 26,950 a 14,56 10,200 26,950 a 8,95 8c 10,200 26,950 a 8,95 8c 10,200 18,325 7,162 3,750 a 8,95 10,400 18,325 10,400 18,325 10,400 18,325 10,400 18,325	State	Year	State Library	Extension	Legislative Reference	State Law or Supreme Court	Archives	Historical	Total	Per Capita (In Cents)
1937-38		1936-37	\$ 16,493	e :	и : :-	\$ Fees	g 54	44.	\$ 16,493	9.0
14		1937-39	201,12		:	<b>*</b> :	#. T		21,100	4.8
14. 1935–37b 4,000, 6,13 1935–37 130,235 7,647 1936–37 6,400, 14,146 1936–37 19,707 8,405 19,306, 14,146 1935–37 8,000, 14,146 1937–39 8,580 40,31 1936–37 8,000, 14,146 1937–39 19,300, 14,580 14,580 14,580 1937–38 8,340, 1936–38 8,340, 1937–38 8,340, 1936–3		1937-39 <sup>b</sup>	1,32,990	3,00	11.810ª		;	6,605"	56,605	3.1
11		1935-37b	4,000	e .	6,300	7.800	e .	7,000	132,990	4.
1936–37		90000			2		:	2,20	23,330	£.3
1936–37 6,400, 9,250 1936–37 1936–37 1937 & 38405 19,707 8,405 14,146 1935–37 1936–37 19,106 9,750 1937–38 1937–38 8,300, n 14,55 1936–37 41,916 9,750 1935–36 60,702 19,970 1935–36 60,702 19,970 1935–37 1936–37 10,400 17,797 1936–37 10,400 17,797		1935-30	130,235	7,647	:		e :	g	137,982	9.8
1937 & 38 <sup>b</sup> 19,707 8,405 1937 & 34,075 14,146 14,146 1935 & 34,075 1935 & 32,880 1935 & 40,31 1935 & 41,916 1937 & 32,880 1935 & 41,916 1935 & 41,916 1935 & 41,916 1935 & 41,916 1935 & 41,916 1935 & 41,916 1935 & 41,916 1935 & 41,916 1935 & 41,916 1935 & 41,916 1935 & 41,916 1935 & 41,916 1935 & 41,916 1935 & 41,916 1935 & 41,916 1935 & 41,916 1935 & 41,916 1935 & 41,916 1935 & 41,916 1935 & 40,000 1936 & 40,318 1935 & 40,000 1936 & 40,318 1935 & 40,000 1936 & 40,318 1935 & 40,000 1936 & 40,318 1935		1930-37			ē	3,550	6,875		19,675	8.3
1937 & 38b	:	1936	19.707	:	. es	4,050		•	11,050	8 0
1935–37 <sup>b</sup> 34,075 32,880 40,31 1937–39 41,916 9,750 14,50 1937–38 20,930 Changing Changing 1936–37 43,300 8,95 1935–37 43,300 8,95 1935–36 60,702 19,970 1935–36 60,702 19,970 1935–36 1937–38		37 & 38b		14,146		13.960	4,045	. 800 %	32,957	H 1
1936–37 87,000 14,55 14,916 14,55 1937–38 14,916 19,750 1937–38 19,970 1935 19,350 1935–36 19,350 19,350 1935–36 19,350 19,350 1935–38 1936–31,162 19,370 1936–38 19,400 17,797		934-37b	34.075	22 880	70 360			2661	31,104	0.
1937–38 41,916 9,750 T.7.  1936 10,200 26,950 T.9.  1936–37 43,300 T.9.  1936–37 43,300 T.9.  1937–38 8,300 T.9.  1937–38 23,000 T.9.  1937–38 7,162 3,750 T.9.  1936–38 7,162 3,750 T.9.  1936–38 T.9.  1036–37 T.9.	ia	936-37	85,000	a	2000,11	3,300	11,080	52,200	174,695	2 3
1937–38 20,930 8,580   Changing (Changing 1936–37 43,300	:	937-39	41,916	9,750	w .	, C.	: 4	000,6	118,760	3 7
(Changing 1936 10,200 26,950 a 1936–37 43,300 a 8,950 a 1937–38 8,340 a 8,950 a 1935–36 60,702 19,970 a 1935–37 30,000 18,325 1936–38 7,162 3,750 a 1936 16,400 7,797		937-38	20,930	8,580	ď	6		:	31,000	7 7
1936 10,200 26,950 n 1936-37 43,300 n 8,95 etts 1937–38 8,340 n 8,95 etts 1935–36 60,702 19,970 n 1935–36 70,000 18,325 1936–38 7,162 3,750 1936 16,400 7,797	tucky			(Ch	anging organ		-data unavailable)	ole)	29,510	0
etts 1936–37 43,300 a 8,95 etts 1937–38 8,340 a 8,95 etts 1935–37 30,000 a 8,95 etts 1937–38 23,000 18,325 a 1936–38 7,162 3,750 1936 16,400 7,797	:	936	10,200	26,950	:	-			1	c,
etts 1937–38 8,340 8,95 etts 1935–36 60,702 19,970 1935–37 0,000 n 1937–38 23,000 18,325 1936 15,400 7,797	: : : : : : : : : : : : : : : : : : : :	936-37	43,300	g	a .				37,150	ю - 1
titis 1935–36 60,702 19,970 19,970 19,370 1935–37 30,000 n 1937–38 23,000 18,325 3,750 1936 16,400 7,797	:	937-38	8,340	:	8,925	æ	17.148		43,300	5 4
1937–38 23,000 18,325 1936–38 7,162 3,750 1936 16,400 7,797	setts	935-36	60,702	19,970	, e	•	2+11-	· ·	34,413	7 7
1937–38 23,000 18,325 1936–38 <sup>b</sup> 7,162 3,750 1936 16,400 7,797		935-37 <sup>b</sup>	30,000	æ ::::		ď		. st	00,072	6 1
1936-38 7,162 3,750 1936 1936 16,400 7,797		82-720	3,	100 01	6	ſ		•	ري. مي.	0
1936 16,400 7,797	- :	936-38b	2,169	10,045		: 6	-	-	41,325	9 I
18/11		926	16,400	5,7,5		•	7,090"	5 ,	18,002	60
1005-00			2016	16111	(Dat	(Data unaveileble)	(	18,260	42,457	1 2
12,500		1935-37	14,438	12,500	6,250	. a			33.188	i.

\* Source: Prepared by P. A. T. Noon, Ohio State Library, June 1, 1937.

\* Included in State Labrary budget.

b Half of biennial appropriation listed.

d Included in Historical Budget.

# TABLE 45\*—Continued

State	Year	State Library	Extension	Legislative Reference	State Law or Supreme Court	Archives	Historical	Total	Per Capita (In Cents)
Nevada New Hampshire New Jersey New Mexico New York	1937–39 <sup>b</sup> 1936–37 1937 1937 1937	\$ 9,390 22,685 29,140	\$ 12,925 45,080 5,000 46,625	\$ n n n n 14,560n	\$ a	a a	\$ soo	\$ 9,390 36,110 74,220 5,000 252,185	10.3 7.8 1.8 1.2
North Carolina North Dakota Ohio Oklahoma	1937–38 1935–37 <sup>b</sup> 1936 1937–39 <sup>b</sup> 1937 & 38 <sup>b</sup>	11,950 4,325 37,309 23,993 52,858	16,663 9,575 28,610	4,972 . 6,135	6,200 21,750 	20,944	2,580 20,350 27,600 8,125	60,729 19,180 85,444 80,203 72,933	3.4 3.4 7.6
Pennsylvania Rhode Island South Carolina South Dakota	1936-37 1937-38 1936-37 1935-36 1936-37	45,299 20,645 4,979 5,166° 18,802	18,795 3,000  9,150 13,356	42,500 a	13,444 10,700 4,061	11,962 3,100 	· · · c c	132,000 37,445 4,979 18,377 32,158	4. 2. 0. 4. 1. 4. 2. 2. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.
Texas Utah Vermont. Virginia	1936-37 1936-37 1936-37 1937-39 <sup>b</sup>	27,370 16,800 35,490 17,950	2,350 9,500 4,425	2,850 <sup>n</sup> (Ds	(Data incomplete) (Data 1,800	ete) 13,835 2,430	000'9	30,170 32,300 72,060 34,857	9.0
West Virginia	1936-37	17,342	54,132	38,000	. et		61,500	170,974	. % .
Total	:	\$1,333,441	\$444,990	\$207,972	\$134,382	\$106,959	\$246,520	\$2,398, 054	4
• Includes \$947 from other sources.	sources.	II.	ncludes \$6,250	Includes \$6,250 grant from General Education fund.	eral Education	fund.			

<sup>-</sup> merance bold moin orner conneces.

From the records of ancient civilizations it is apparent that libraries have been associated with the growth of governments of major importance. They have been essential to governmental activity of many kinds. 40 This has been the case in the development of government in the United States, and is evidenced by the establishment of the Library of Congress, in 1800, and other federal libraries since that time to serve the executive, legislative, and judicial branches of the government and its various departments, commissions, and affiliated organizations, both within and without the District of Columbia. Mr. Hill lists 166 such libraries in Washington, alone, which contained 10,830,900 volumes in 1934, as contrasted with 106,200 volumes in the Library of Congress (50,000 volumes) and in other federal libraries in 1849.41 Library service to national parks, to federal prisons, to the Tennessee Valley Authority, and to other federal agencies outside Washington has likewise assumed many forms and has been developed in varying degrees.

As has been previously shown, the Library of Congress takes first rank not only among the libraries of the federal government, but, likewise, among the great national libraries of the world. Its classification scheme, its card distribution and bibliographical service, and its union catalog of the books in its own collection and those in other libraries in the United States not only serve administrators and scholars within Washington but are of the greatest use to libraries and scholars throughout the nation and the entire world. Its resources are likewise supplemented by the highly developed collections of the Smithsonian Institution (807,047 volumes), the Office of the Superintendent of Documents (750,000 volumes), Army Medical Library (386,393 volumes), the Department of Agriculture (226,-000 volumes), the U.S. Office of Education, the U.S. Geological Survey, et al., which contain thousands of volumes of highly specialized books, periodicals, and pamphlets available, under appropriate restrictions, to scholars who visit Washington or through interlibrary loan, film, or photostat to distant scholars, when such services are feasible

<sup>4</sup>º Hill, op. cit., p. 1.

A final reference may be made to other kinds of service rendered libraries and the public by federal agencies. The Smithsonian Institution maintains an exchange service through which scholarly publications issued by educational and scientific institutions and learned societies may be exchanged for publications from similar organizations abroad; under certain limitations such institutions are permitted to import, free of duty, books published in the English language in foreign countries; a low postal rate has been granted libraries for the mailing of books to residents in local areas; and through the U.S. Office of Education information and statistics concerning various aspects of library service are collected and published.

# THE NATIONAL ARCHIVES

Since the beginning of library development in America, one of the functions of many libraries has been the preservation and administration of manuscript and historical material relating to the various activities of the federal, state, and local governments. Libraries such as those of the American Antiquarian Society, the Pennsylvania and Wisconsin Historical Societies, and various state libraries and archives, have collected, conserved, and made available to scholars millions of pages of material, manuscript and print, which constitute the basic sources of American history.

The federal government, however, took no such action for the preservation and administration of the papers and documents originating in federal offices until 1926. At that time an appropriation was passed for the erection of a National Archives building in Washington, and in 1934 Congress passed an act providing for the establishment and operation of the National Archives. In the same year, the first National Archivist was appointed, and the organization of an administrative staff was begun. In 1935–36 the work of this American public records office commenced.<sup>42</sup>

<sup>4&#</sup>x27; U.S. National Archives, First Annual Report of the Archivist of the United States for the Fiscal Year Ending June 30, 1935 (Washington: Government Printing Office, 1936).

The relationship of this new national organization to libraries is too obvious to require more than briefest mention. The National Archives has two fundamental objectives: (1) the concentration and preservation in a central depository of the archives of the United States government, and (2) the arrangement and administration of these archives in such manner as to make them easily accessible to officials and students desiring to use them. These objectives place the new organization in the field with libraries, assuming as its express task that of dealing with the official archives of the nation, in contradistinction to the task of historical societies and libraries in general, which is to collect and to make available materials relating to state and local units of government, as well as other manuscript and printed materials.

In this new organization, established on a national basis and supported by federal funds, the American public and the libraries have an additional resource from which to serve the interests of the entire nation. The various divisions of the National Archives, like those of the Library of Congress which have served libraries in many beneficial ways, have begun to formulate plans and procedures for the cleaning, filing, and filming in libraries of materials having wide application throughout the country. The archival project, which the institution organized under the Works Progress Administration, for collecting, restoring, and cataloging archival and similar materials in all the states, has already resulted in wide extension of such resources throughout the country.

#### SUMMARY

The history of the development of American college, university, reference, special, state and federal libraries still awaits the writing. An occasional discussion has appeared here and there,<sup>43</sup> but the support which these libraries have given to the

<sup>43</sup> Shores, op. cit.; L. R. Wilson, "The Service of Libraries in Promoting Scholarship and Research," Library Quarterly, III (1933), 127-45; H. M. Lydenberg, A History of the New York Public Library: Astor, Lenox and Tilden Foundations (New York: New York Public Library, 1923; U.S. Bureau of Education, Public Libraries in the United States of America, Their History, Condition and Management: Special Report,

formulation of educational policies and objectives, to teaching, to research, to publication, to industry, and to public administration has not been described. Contributing to this total support have been the College and Reference Section, the College Library Advisory Board, and the Board on Resources for Research of the American Library Association, the Association of Research Libraries, the National Association of State Libraries, the American Association of Law Libraries, the Bibliographical Society of America, the Special Libraries Association, the American Library Institute, and other library organizations. These organizations, in turn, have been tremendously aided by the Library of Congress, by other federal libraries, and by educational foundations in placing the bibliographical resources of the nation at the disposal of scholars and in extending and enriching national library resources.

From the data included in this chapter there is abundant evidence that since 1900 the library resources of America available to the scholar have been greatly extended. Seemingly, they outrank the resources furnished for the general public, although they are usually available to members of the public through interlibrary loan and in other ways. They are largely concentrated in the northeastern quarter of the nation, and procedures for their use by scholars in less well-supplied regions have not been as fully developed as they should be. Extension of the bibliographical resources of the Library of Congress, development of bibliographical centers and regional union catalogs, where they are lacking, and the rapid extension of the reproduction of important materials through photostat and film, all seem to promise amelioration of this condition.

Part I (Washington: Government Printing Office, 1876); G. W. Cole, Early Library Development in New York State, 1800–1900 (New York: New York Public Library, 1927); S. S. Green, Public Library Movement in the United States, 1853–1893("Useful Reference Series," No. 8; Boston: Book Company, 1913); Boston Athenaeum, The Athenaeum Centenary: The Influence and History of the Boston Athenaeum from 1807–1907 (Boston: Boston Athenaeum, 1907); H. G. Wadlin, The Public Library of the City of Boston: A History (Boston: Printed at the Library and published by the Trustees, 1911); Hill, op. cit.; J. I. Wyer, Jr., The State Library (Chicago: American Library Association, 1919).

### CHAPTER VI

# SCHOOL AND OTHER LIBRARIES

HE American public school is distinctive among the public school systems of the world. It makes provision at public expense for the training of all pupils from the elementary school through the high school. In recent years, in many places, it has extended the period through the junior college. In 1933–34 the enrolment in the elementary schools, public and private, was 23,262,371, and in public and private high schools, 6,096,488, or approximately 60 per cent of the total population of high school age in the country.

The development of the school library has been one of the most characteristic features of school organization and improvement since 1900. It has paralleled the changes in methods of teaching. As a result, the use of many library materials has largely taken the place of the use of single textbooks; students, are now given assignments based on these materials rather than on single texts. Individual work based on library materials has in many instances replaced pupil-participation in formal recitations.

Practice with regard to the provision and administration of school library service has varied widely, and there is at present far less agreement concerning it than is desirable. In the majority of instances, the libraries of elementary schools are less well developed than those of high schools, and in both instances practice is largely dependent upon the regulations developed by local and state educational authorities. Elementary school library service usually takes the form of classroom collections administered by grade teachers, with books frequently supplied by the local public or county library through arrangements between the school and library authorities. High school library

<sup>&</sup>lt;sup>1</sup> Correspondence with U.S. Office of Education.

service, however, is more frequently organized within the school. It is administered by a librarian in central library rooms or study halls within the school building; it is usually supported out of school funds, either under the direct supervision of the school or in conjunction with the local public or county library; and general rules or standards for its organization, support, and use are formulated by local or state educational authorities. In case the high school is a member of a regional accrediting agency, it conforms also to the regulations promulgated by the agency for its general guidance. Service to the public is sometimes furnished by school libraries, and in some instances both school and public libraries are located in school buildings.

The effort to present data concerning these libraries is difficult in the extreme, as no single agency has published such information since 1929,<sup>2</sup> at which time the Office of Education recorded whatever data could be secured from school libraries having 3,000 volumes, or more. Obviously, this limitation eliminated thousands of school libraries in both the elementary and high school fields, in the former because very few elementary school libraries are organized on a large unit basis, and because thousands of high school libraries, though usually organized on a unit basis, fall below the 3,000 volume mark. The data are also made largely invalid, except for general comparative pur-

<sup>2</sup> The U.S. Office of Education is at present completing a statistical study of public, elementary, and secondary school libraries for 1934–35. The following data were released in August, 1937, but distributions by states were unavailable. One hundred, three thousand, and eighty-one schools reported. Of these 27,766 schools were served by centralized libraries and 33,624 by classroom libraries. A total of 61,390 were served in one or the other of these ways.

These schools were embraced within city, county, or city-county school systems, and all libraries ranging from under 500 to more than 10,000 volumes were included. The schools enrolled 12,501,017 pupils, or approximately two-fifths of the total enrolment of all public, elementary, and secondary schools, in 1934–35. Of the 12,501,017 pupils enrolled, 7,214,321 were served by libraries of the centralized type.

The total number of volumes in centralized libraries was 28,612,500, and the additions for the year were 1,901,128. The expenditures for the year for school systems reporting these items (incomplete) were: books and pamphlets, \$2,239,433; periodicals, \$229,063; binding and rebinding, \$220,321; salaries, \$3,722,227; equipment, \$99,646; all other purposes, \$105,972; total, \$6,868,251.

The returns are tentative and subject to revision. They represent approximately one-half of the cities and 30 per cent of the counties.

TABLE 46\* Volumes in School Libraries of 3,000 Volumes, or More, per 10 Inhabitants 5-17 Years of Age, 1929

		Volu			
State	Rank	Total	Per 10 Inhab- itants 5-17 Years of Age	Standard Score	
California	I	1,186,945	9 94	2 60	
New Hampshire	2	1∞,850	9 13	2 25	
Wisconsin	3	610,965	8 13	1 82	
New York	4	2,206,029	7-75	1 69	
Colorado	5	199,569	7 55	1 60	
Minnesota	6	475,720	7 19	I 43	
Montana	7	99,293	7 02	I 34	
Washington	8	253,610	6 99	I 34	
Connecticut	9	284,822	6.91	1 30	
Mississippi	10	36,432	5 92	0.87	
Missouri	11	470,529	5 47	0.67	
Arizona	12	63,741	5.27	0 61	
Michigan	13	642,882	5.21	0 56	
Kansas	14	231,889	4.85	0.39	
Idaho	15	61,163	4 78	0.39	
Iowa	16	286,710	4.65	0.35	
Oregon	17	99,997	4.58	0.30	
South Dakota	1 <b>8</b>	83,931	4.25	0.17	
West Virginia	19	213,578	4.03	0.04	
Utah	20	60,817	3 90	0.00	
Illinois	21	680,633	3.79	-0 04	
Maryland	22	150,994	3 71	-0 09	
Maine	23	70,961	3 59	-0 13	
Massachusetts	24	350,417	3 45	-0 22	
Indiana	25	264,013	3 33	-0 26	
Ohio	26	531,907	3 26	-0.26	
Pennsylvania	27	832,081	3 22	-0.30	
Texas	28	524,488	3 17	-0 30	
Wyoming	29	17,100	2.89	-0.43	
New Mexico	30	37,114	2.86	-0 43	
North Dakota	31	56,397	2.76	-0.48	
New Jersey	32	272,324	2 69	-0 52	
Delaware	33	14,620	2.51	-o 61	
Rhode Island	34	42,961	2.48	-o 61	
Oklahoma.	35	166,847	2.37	-0 65	
Nebraska	35 36	75,949	2 11	<b>-0</b> 78	
Florida	30 37	65,545	1 68	-0 95	
Alabama	38	134,128	1 63	_I.∞	
North Carolina	39	169,457	1.60	—ı ∞	
Nevada	39 40	3,000	1.55	-1.04	
Kentucky	4I	110,619	1.46	-I.04	
Vermont	42	11,200	1 27	-1.13	
Virginia	-	89,588	I 24	-1.13 -1.17	
Tennessee	43 44	91,563	1 24	-1.17 -1.17	
Georgia	44 45	103,477	1.16	-1.17 -1.17	
Louisiana	45 46	63,768	I 04	-1.17 -1.26	
Arkansas	•		1 04	-1.26	
South Carolina	47 48	57,100	0 58		
Couch Caronna	40	34,709	0 50	-1.43	

\* Source · Adapted from data reported in U.S. Off. Educ., Statistics of Public, School, and Society Libraries, 1929, Bull. 1930, No. 37 (Wash. Govt. Print. Off., 1931), Table 10, pp. 17–207.

Mean per 10 inhabitants 5–17 years of age (based on means of the 48 states), 3 89; standard deviation, 2.30; U.S. total, 12,780,067; U.S. volumes per 100 inhabitants 5–17 years of age (including District of Columbia), 3.99

poses, because data for many schools were not reported. Much of the development which has taken place in the school library field has occurred since 1929. These facts are supported by data for the year 1934, secured from the reports of state departments of education in twenty-three states. The mean number of volumes in school libraries in 1929 for the same states, was 3.24 per 10 population 5–17 years of age. In 1934, the mean number was 22.45, or nearly seven times as large. When the twenty-three states were ranked according to these two sets of data, the correlation was found to be high, indicating that the states maintained a fairly constant relative standing for the five-year period.

Table 46 and Figures 44 and 45 describe the distribution in 1929 of volumes, per 10 inhabitants 5-17 years of age, in school libraries of this country which had 3,000 volumes, or more.3 They show that in that year 12,780,067 volumes were available in school libraries. The figures for 1934-35 indicate that, in addition to the growth over a period of five years, inclusion of the smaller libraries materially increased the total volumes, since the number reported is 28,332,750. The figures for 1929 show that, owing largely to the dominance of California, in which school library support of a generous nature is compulsory, the Far West possesses almost twice as many volumes per unit of population as do the other regions. The Northeast, Midwest, and Northwest, all have approximately the same per unit number of volumes. The Southeast, with only about one-seventh as many volumes as the Far West, ranks lowest. California, New Hampshire, and Wisconsin possess the most volumes per unit of population, and South Carolina, Arkansas, and Louisiana, the fewest. The range is from 9.94 to 0.58. The inadequacy of even the larger number becomes instantly apparent if it is remembered that the unit of measurement is the number of volumes per 10 persons 5-17 years of age, and that five volumes per high

<sup>&</sup>lt;sup>3</sup> Compiled from the U.S. Office of Education, Statistics of Public, Society, and School Libraries, 1929, Bulletin 1930, No. 37 (Washington: Government Printing Office, 1931), pp. 17–207, including all libraries classified as being controlled by the school.

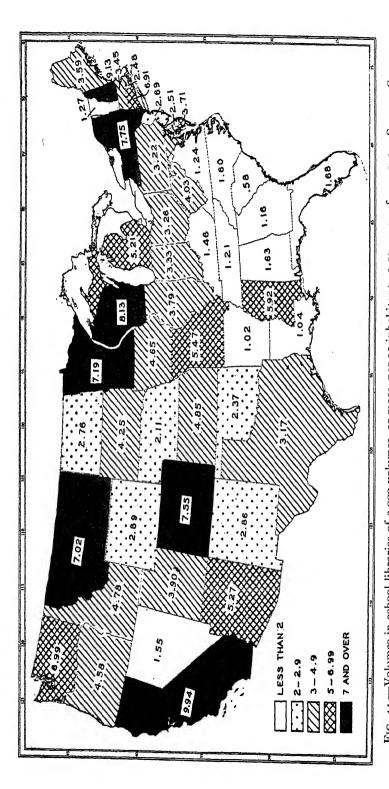


Fig. 44.—Volumes in school libraries of 3,000 volumes, or more, per 10 inhabitants 5-17 years of age, 1929. Source: Same as for Table 46. (Goode Base Map No. 110, published by the University of Chicago Press. Used by permission.)

school student enrolled are required in certain schools having membership in the Southern Association.<sup>4</sup>

Some states which rank high in public library development rank low in school library resources. Others which rank high in school library development rank low in public library resources. This relationship is manifest in Table 47.

### SCHOOL LIBRARY EXPENDITURES

The test of school library development rests, in the final analysis, upon regular expenditures for maintenance, salaries, and books. Unfortunately, the data are neither explicit nor

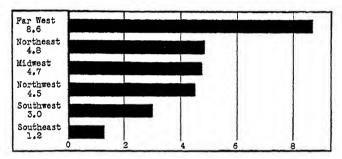


Fig. 45.—Regional summary of volumes in school libraries of 3,000 volumes, or more, per 10 inhabitants 5-17 years of age, 1929.

exact on this point. Not only do the limitations previously noted operate here but the inclusion of data on the salaries of school librarians and on book purchases adds to the uncertainties. Funds for such salaries and purchases frequently are not budgeted separately, and consequently the information that is available is far from satisfactory. Even in New York, where there has been a long-established policy of state aid for school libraries and state supervision of such libraries, data on the amount of money from state funds spent on books is not available after 1929. The report of the Library Extension Division for that year indicates that the apportionment act which extended more liberal state aid to rural schools also abolished the

<sup>&</sup>lt;sup>4</sup> Southern Association of Colleges and Secondary Schools, *Proceedings of the Thirty-ninth Annual Meeting*, Atlanta, Georgia, December 6-7, 1934, pp. 366-68.

special grant for library books.<sup>5</sup> The report for 1931 specified that because of this change in administrative policy there is no complete report on book purchases, and that only 950 lists of books were sent to the department for approval, in comparison with the 3,970 lists sent during 1927–28.<sup>6</sup>

TABLE 47\*

Comparison of States Related Inversely as to School Library Resources, 1929, and to Public Library Development, 1934

	School Library Resources			Library opment	Difference			
State	Rank	Standard Score	Rank	Standard Score	Rank	Standard Score		
	States I	Ranking High	es and Low i	es and Low in Public				
Mississippi	10	0.87 1.60	46 22	-1 28 0.02	36	2.15		
Montana	5 7	I.34	25	-0.02	17 18	I.58 I 52		
West Virginia	19	0 04	47	-1.39	28	I.43		
Minnesota	6	I 43	21	0.15	15	I 28		
Arizona	12	0 61	29	-0 50	17	III		
Idaho	15	0.39	32	-0.64	17	1 03		
	States Ranking Low in School Library Resources and High in Public Library Development							
Vermont	42	-1.13	5	I 52	37	2 65		
Massachusetts	24	-0.22	I	2 31	23	2.53		
Rhode Island	34	-o 61	6	1 14	28	I.75		
Nevada	40	<b>—</b> I.04	15	0 63	25	1 67		
Wyoming	29	-0 43	7	I II	22	I 54		
New Jersey	32	-0 52	9	0 96	23	1.48		
Delaware	33	-0 6I	13	0 71	20	1.32		

<sup>\*</sup>Source: Tables 46 and 51.

School library support, however, is extremely important, and in most states definite legislation or rules adopted by state de-

<sup>&</sup>lt;sup>5</sup> New York State Education Department, "Library Extension Division," The University of the State of New York, State Education Department, Annual Report for the School Year Ending July 21, 1929 (Albany: University of the State of New York, 1930), p. 303.

<sup>6</sup> Ibid., 1931, p. 270.

partments of education bear distinctly upon it. Manuals for the successful use of the libraries are published, as well as approved graded lists from which the schools are expected to make selections. California requires all schools in unincorporated areas to set aside a minimum of \$25 per teacher as a fund for the purchase of library materials. In city schools in California the minimum is \$0.40 per pupil, although the amount is frequently higher, particularly in high schools. Permission is also given school authorities to contract with public and county libraries for school library service, and 2,387 school districts have joined county library systems under these provisions.7 The fact that this privilege has been largely taken advantage of in California has greatly contributed to the success of both school and county libraries. Other states require schools to budget a certain amount per school, teacher, or number of pupils for library purposes, and in twenty-three states and the District of Columbia school librarians are certificated.8 A number of states also provide library funds from state sources, in some instances requiring the local district or county to match such appropriations. At the present time a nation-wide study of high school standards is being carried on by a committee of the various accrediting agencies of the nation,9 and special consideration is being given to the formulation of standards which will result in the regular and adequate support of library service in member-schools. These will doubtless take the place of the present standards of the different accrediting associations, some of which require a minimum expenditure for books of \$1 per high school pupil.10

Variations in provisions for the schools are due in part to the fact that, while provision for schools is mandatory, that for school libraries is largely permissive. One writer has pointed out that, of the 39 states replying to an inquiry which he made,

<sup>7&</sup>quot;List of Counties Having County Free Libraries," News Notes of California Libraries, XXXI (1936), 136.

<sup>8</sup> Data from the files of the American Library Association, August, 1937.

<sup>&</sup>lt;sup>9</sup> Cooperative Study of Secondary School Standards [Evaluative criteria], W. C. Eells, Coordinator (Washington: Cooperative Study of School Standards [1936]).

<sup>10</sup> Southern Association of Colleges and Secondary Schools, op. cit.

23 have some legal provision for support of school libraries, while 16 have none. The provisions for the 23 states are more permissive than mandatory.<sup>11</sup>

A further difficulty in the support of school libraries is due to the division of responsibility between three governmental agencies: local, county, and state. The need of state aid in extending school library service is emphasized by the New York State Department of Education in its *Report* for 1935, which directs attention to the fact that while the cost of school library support is only \$1 per resident (or \$2.50 to \$3 per borrower), as contrasted with the general school expense of \$130 per pupil, yet it has been impossible to get the needed appropriations from counties or towns.<sup>12</sup>

Another indication of the lack of proper provision for the school library is found in a consideration of the relation of the amount budgeted for the use of the library to the amount of the total school budget in some of the larger senior and junior high schools. For the sixteen large cities which reported both their total school and their school library expenditures to the American Library Association in 1935, the per cent which total school library expenditure constituted of the total educational expenditure ranged from 0.8 for Baltimore, Maryland, to 3.5 for Spokane, Washington. The average per cent for the sixteen cities was 1.4.<sup>13</sup>

Further evidence of the lack of sufficient budgetary provision for library purposes is found in the fact that where such items were included in school budgets they were frequently the most heavily cut during the depression. As Mr. Purdy showed in his study of the school libraries of the metropolitan area of Chicago, the reduction in average expenditure per pupil for books, period-

<sup>&</sup>lt;sup>12</sup> R. S. Ihlenfeldt, "Financial Support of School Libraries," National Education Association, Department of Rural Education, *Bulletin* (February, 1926), pp. 35-37.

<sup>&</sup>lt;sup>12</sup> New York State Education Department, "Library Extension Division," The University of the State of New York, State Education Department, Annual Report for the School Year Ending June 30, 1935 (Albany: University of the State of New York, 1937), p. 314.

<sup>&</sup>lt;sup>13</sup> Data computed from "Junior and Senior High School Library General and Salary Statistics," American Library Association, Bulletin, XXIX (1935), 875.

icals, and bindings in 31 high schools was from \$1.04 in 1929—30 to \$0.49 in 1933–34, the average for the five-year period being \$0.74. Similar average expenditures for 41 elementary schools dropped from \$0.71 in 1929–30 to \$0.29 in 1933–34, the average for the five-year period being \$0.52.14 The inadequacy of support is further evidenced by data from the study of rural schools by Miss Lathrop, 15 and of rural school libraries by the Department of Rural Education of the National Education Association, which shows that in many instances the taxing units are not large enough to produce sufficient revenue to support schools adequately, or that due provision for support has not been made. 16

A recent survey of the situation in New York City bears additional testimony to the inadequacy of school library service. Through special questionnaires sent out in 1934 the state department has accumulated more extensive material than was previously available on the school libraries of the state. The data for New York City has been summarized in the 1935 Report, with some preliminary indications for the state as a whole. For the city high schools six evidences of the inadequacy of service are mentioned, while ten are given for the junior high schools. For the state as a whole, four needs are emphasized:

(1) more time to be devoted to library service by trained librarians;

(2) library service in elementary schools to be strengthened and increased;

(3) libraries to be organized more completely and more adequate records to be kept; and (4) funds for books to be increased radically.<sup>17</sup>

Some of the reasons why school library facilities are so inade-

<sup>&</sup>lt;sup>14</sup> Graduate Library School, University of Chicago, "A Preliminary Report on the Investigation of School Library Resources, Administration and Use in the Metropolitan Area of Chicago" (Unpublished report, September 20, 1934), p. 38.

<sup>&</sup>lt;sup>15</sup> E. A. Lathrop, A Study of Rural School Library Practices and Services (Chicago: U.S. Office of Education, Carnegie Corporation of New York, and the American Library Association, 1934), p. 89.

<sup>&</sup>lt;sup>16</sup> "Rural School Libraries," [Yearbook], National Education Association, Department of Rural Education, *Bulletin* (February, 1936).

<sup>&</sup>lt;sup>17</sup> New York State Education Department, "Library Extension Division" (1935), pp. 323-24.

quate and uneven are: (1) state legislation or regulations promulgated by state departments of education have frequently not included provisions requiring the inclusion of library support in the school budget; and (2) school superintendents, principals, and school boards have often failed to think of library service as essential to school efficiency. Lack of co-operation between schools and public libraries in providing service has also frequently contributed to the unsatisfactory situation.

### USE OF THE SCHOOL LIBRARY

Records of school library circulation, like records of college and university library circulation, are generally maintained. But this is usually done in such a diverse manner as to have slight significance in a comparative study of library resources and use. Where the library is operated by the public library of the city or county, records of circulation may be kept by the library rather than by the school. If the library is operated by the school, records of books taken out may be kept, but generally no records are made of books taken from the shelves and consulted in the reading room. Student use of the public library, however, constitutes a fairly large per cent of total library use. The Wilson and Wight study found that student use constituted 65 per cent of the total in nine Southern counties; \*\*\* Miss Hunt found that 53 per cent of the visitors to the public library in Racine, Wisconsin, were students; 19 and Mr. Haygood and Mr. Ellsworth found the per cents in New York City, 20 South Chicago, and St. Louis studies21 to be, respectively, 38.2, 49.1, and 50.0 per cent.

From such evidence as is available, however, it is very ap-

<sup>&</sup>lt;sup>18</sup> L. R. Wilson and E. A. Wight, *County Library Service in the South* (Chicago: University of Chicago Press, 1935), p. 101.

<sup>&</sup>lt;sup>19</sup> M. L. Hunt and others, "A Day's Work of the Racine, Wisconsin, Public Library," *Library Journal*, LIX (1934), 106–10.

<sup>&</sup>lt;sup>20</sup> W. C. Haygood, "Who Uses the Public Library" (MS in press).

<sup>&</sup>lt;sup>21</sup> R. E. Ellsworth, "The Distribution of Books and Magazines in Selected Communities" (Unpublished Ph.D. dissertation, Graduate Library School, University of Chicago, 1937), p. 14.

parent that school use of the school and public libraries is steadily growing, and that the use of the public library by school students, both in schools which provide their own libraries and in those which do not, constitutes one major service of the public library. This is attested by circulation, not only in juvenile departments but in adult departments as well. The library resources of many schools are so limited that they not only fail to meet the outside reading interests of students but even some of the curricular needs. The checking of schedules prepared by the Cooperative Study of Secondary School Standards, carried on during 1936-37 in 200 high schools, should prove very revealing as to the extent of this use, should lead to a better integration of public and school library facilities, and should establish clearly the proper criteria for measuring the school library's effectiveness in the achievement of the school's educational objectives.

School library service is not alone measured in terms of circulation and of books, although such records form the major data now available for its evaluation. Mr. B. Lamar Johnson investigated the various types of service which these libraries offer, including instruction in library use. He found that comparatively little systematic teaching of library use was provided.<sup>22</sup> Librarians generally assist students in finding materials and give them some type of informal instruction in library use, but the extent of student competence in such use has only recently been investigated. The development of tests as to this competence at three levels, college, high school, and elementary school, and the report on major differences discovered pave the way for more thoroughgoing programs of instruction in this direction.<sup>23</sup>

<sup>&</sup>lt;sup>22</sup> B. L. Johnson, *The Secondary-School Library*, U.S. Office of Education, Bulletin 1932, No. 17 (Washington: Government Printing Office, 1933), pp. 32-51.

<sup>&</sup>lt;sup>23</sup> Tests on the use of the library were developed by Lulu Ruth Reed in connection with an investigation of differences in student competence to use it. Material on validity and reliability of the tests is presented in her unpublished doctoral dissertation ("A Test of Students' Competence to Use the Library," Graduate Library School, University of Chicago, 1937), of which an essential portion will appear in the April, 1938, issue of the *Library Quarterly*. The tests (with scoring keys and manuals) are published by the Chicago Planograph Corporation.

Until such time as more complete studies of the use of the library have been made, amount of book stock and expenditures for libraries will remain the chief indications of the adequacy, or inadequacy, of services which the library gives to the schools.

#### SUMMARY

Data bearing upon the school library are far less complete than they should be, if one judges from the increasing importance of the use of library materials in the daily work of the school itself. The most recent information from the Office of Education shows that of 103,081 public elementary and secondary schools reporting in 1934-35, 61,390 made use of library materials supplied either by centralized or classroom libraries. To state this differently, there were 41,691 schools which failed to receive service from libraries. It is noteworthy that of the public elementary and secondary schools, those reporting comprised approximately 50 per cent of all the city and 30 per cent of all the county schools of the nation. It may not be amiss to estimate, on this basis, that between 80,000 and 100,000 schools are not served by centralized or classroom libraries within the school, but are dependent upon public or other libraries, if these are present in the communities in which the schools are located. This, obviously, constitutes a major obstacle to the oncoming generation in preparing itself to meet effectively the problems with which it will be confronted in a highly complex, democratic society.

The data also make clear that specific items for library purposes are frequently not included in school budgets; that state appropriations for school libraries are not nation-wide; that the certification of school librarians obtains in less than one-half of the states; that legislation or regulations issued by state departments of education, looking to the steady improvement of school libraries, have not been developed upon a satisfactory basis; and that public schools and libraries are often not as cooperative as they should be, although both are supported by the public and are engaged in work that is purposefully educational.

In spite of these limitations, however, the advance in the development of public school libraries during the past two decades has been one of the most notable in American education. Elementary and secondary school education has been tremendously enriched by means of library service, where this has been supplied adequately; and one of the most heartening features of present-day library and educational planning is the inclusion of state-wide support for such service. The state of Tennessee, in the report of its Educational Commission in 1934, recommended—though unsuccessfully—an annual appropriation of twenty-five cents per capita for library purposes, including school library service. This was later to be increased to fifty cents per capita. The fund was to be distributed by the State Department of Education.24 In 1936, Louisiana made \$1,000,-000 available for text and other books for public schools.25 And in 1937 both Tennessee and Georgia appropriated \$100,000 each for school library purposes.26

The increasing importance of the school library has also been recognized by library and teacher-training agencies in their preparation of librarians and teachers to administer school collections; and, on account of the rapid development of the adult educational activities of both the library and the school, librarians and teachers, alike, are placing greater emphasis upon the developments of permanent reading interests and habits by school students in order that in their later life they may be equipped to deal realistically with important problems and ideas which appear in print.

<sup>&</sup>lt;sup>24</sup> Tennessee Educational Commission, *Report*, Part II, "Recommendations Affecting Public Education in Tennessee, 1934" (Jackson, Tenn.: Long-Johnson, 1935), p. 18.

<sup>&</sup>lt;sup>25</sup> "Louisiana's State Funds in Action" (editorial), American Library Association, Bulletin, XXXI (1937), 347-

<sup>26</sup> Correspondence from the School and Children's Division of the American Library Association.

### CHAPTER VII

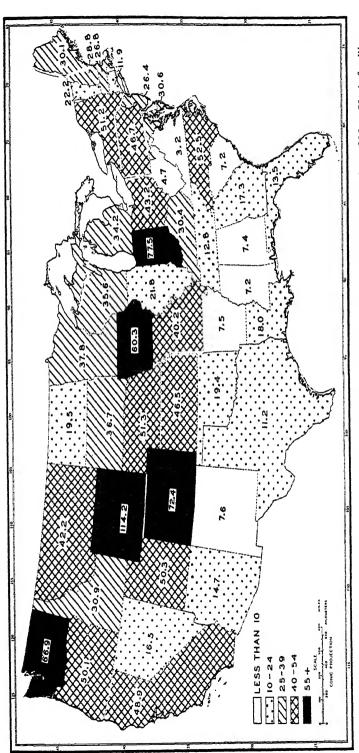
# SUMMARY OF LIBRARY DEVELOPMENT

ARIATIONS in library development in the United States have been presented in extended detail in chapters i-vi. These variations have been particularly concerned with (1) per cent of the population to whom local public library service is available, (2) number of volumes in different types of libraries, (3) library expenditure, (4) number of volumes circulated, and (5) number of registered library users. The discussion concerning these central themes has involved other related subjects, all of which, when brought together in this chapter, should go far in indicating the pattern, or index, of library development in the nation today.

Before presenting a final statement concerning this pattern, or index, however, four additional variations in library development may be introduced. These are: (1) the distribution of gifts for the erection of libraries by Andrew Carnegie and the Carnegie Corporation of New York, (2) the number of librarians actively carrying on library work in the various states, (3) the distribution of accredited library schools engaged in the professional training of librarians, and (4) the expenditures made by state governments for state libraries, library extension service, and grants-in-aid to libraries.

## DISTRIBUTION OF CARNEGIE LIBRARY BUILDINGS

In 1924, the Carnegie Corporation of New York published The American Public Library and the Diffusion of Knowledge, in which the author set forth what he conceived to be Carnegie's philosophy of libraries and a detailed record of the number and cost of public library buildings provided by him or the Carnegie Corporation of New York. The total number of such buildings erected in the United States between 1896 and 1923 was 1,677,



buildings, 1896-1923. Source: Same as for Table 48. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.) Fig. 46.—Appropriations per 100 population, made by Andrew Carnegie and the Carnegie Corporation of New York for library

The figures in this map are expressed in terms of dollars.

including branch library buildings, grants for their erecting amounting to \$40,908,853.47. They were located in 1,408 communities and were estimated to serve 32,956,500 people, or 31 per cent of the population. Twenty-four hundred and sixty-two communities with 1,000 population, or more, possessed public libraries unaided by Carnegie funds. These served an estimated population of 23,825,500, or 22.5 per cent, and increased the total served to 55,782,000, or 53.5 per cent. The significance of the stimulation of library interest resulting from Carnegie's assistance cannot be estimated. The places where

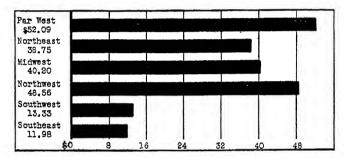


Fig. 47.—Regional summary of appropriations per 100 population, made by Andrew Carnegie and the Carnegie Corporation of New York for library buildings, 1896–1923.

this stimulation was felt and the amount of money appropriated for buildings in the various states are indicated in Table 48 and Figures 46 and 47. The most striking fact revealed by the data, other than the amount and range of assistance, is the departure from the general library pattern which the pattern of assistance presents, particularly in the case of the New England states. Rhode Island and Delaware received no funds whatever, and no New England state was included in the list of the ten states which received the greatest aid. The heavy concentration of aid in the Midwest, the Northwest and the Far West, and the slight concentration in the Southeast and Southwest, due in large measure to lack of ability to meet the requirement to match funds in order to provide a certain per cent of

<sup>&</sup>lt;sup>1</sup> W. S. Learned, *The American Public Library and the Diffusion of Knowledge* (New York: Harcourt, Brace and Company, 1924).

TABLE 48\* Appropriations per 100 Population, Made by Andrew Carnegie and the CARNEGIE CORPORATION OF NEW YORK FOR LIBRARY BUILDINGS, 1896-1923

_			Appropriations		C
STATE	Rank	Buildings	Total	Per 100 Population	Standard Score
Wyoming	I	16	\$ 257,500	\$114 2	3 64
Indiana	2	164	2,508,664	77.5	2 00
Colorado	3	35	749,943	72 4	I 77
Washington	4	43	1,046,000	66 9	I 53
Iowa	5	101	1,495,706	60 3	I 23
North Carolina	6	10	166,445	52 5	0 88
Nebraska	7	69	706,288	51 3	0 83
New York	8	106	6,449,200	51 2	0 83
Utah	9	23	255,470	50 3	0 79
Oregon	10	31	478,000	50 1	0 78
California	11	142	2,776,987	48 9	0.72
Pennsylvania	12	56	4,496,148	46 7	0 63
Kansas	13	59	874,996	46 5	0 62
Ohio	14	105	2,871,483	43 2	0 47
Montana	15	17	226,700	42 2	0 42
Missouri	16	33	1,460,143	40 2	0.34
Minnesota	17	65	969,375	37.8	0 23
South Dakota .	18	25	254,000	36 7	0.18
Wisconsin.	19	63	1,045,511	35.6	0 13
Michigan	20	61	1,655,950	34 2	0 07
Idaho	21	10	137,5∞	30.9	-0 08
Maryland	22	14	500,000	30 6	-0 09
Kentucky	23	23	795,3∞	30 4	-0 10
Maine	24	17	238,950	30 I	-0 I2
New Hampshire	25	9	134,000	28 8	-0 17
Massachusetts	26	43	1,137,5∞	26 8	-0.26
New Jersey	27	35	1,066,935	26.4	-0.28
Vermont	28	4	80,000	22 2	-0 47
Illinois	29	106	1,661,2∞	21 8	-0 49
North Dakota	30	8	132,7∞	19 5	-0.59
Oklahoma	31	24	464,5∞	19 4	-0 59
Louisiana	32	9	380,000	18.0	-0 66
Georgia	33	24	503,756	17 3	-0 69
Nevada	34	I	15,000	16 5	-0 72
Arizona	35	4	64,000	14 7	-0 80
Florida	36	10	198,000	13 5	-o 86
Tennessee	37	13	335,500	12 8	-o 8g
Connecticut	38	II	191,900	11.9	-0 92
Texas	39	32	649,5∞	11.2	-o <u>9</u> 6
New Mexico	40	3	32,000	7 6	-1 12
Arkansas	4I	4	138,6∞	7 5	-1 13
Alabama	42	14	195,8∞	7.4	-1.13
Mississippi	43	II	145,5∞	7.2	-1.14
South Carolina	43	14	124,700	7.2	-1.14
West Virginia	45	3	81,500	4.7	-1.26
Virginia	46	3	78,∞∞	3.2	-1.32
- 0		3	,-,	]	

<sup>\*</sup>Source: W. S. Learned, The American Public Library and the Diffusion of Knowledge (N.Y.: Harcourt Brace and Co., 1924), pp. facing 72–73.

Mean per 100 population (based on means of 46 states), \$32.7; standard deviation, \$22.4; U.S. total buildings, 1,677; U.S. total appropriations for buildings (including District of Columbia), \$40,908,853; U.S. appropriations per 100 population (including District of Columbia), \$33.6.

There were no appropriations for Delaware or Rhode Island.

the amount of annual maintenance, are likewise notable. No summary of the grants for academic library buildings is given by Mr. Learned, but in a later report, the total amount provided for this purpose by Carnegie, or the Corporation, is placed at \$4,151,048.<sup>2</sup>

Since different communities built buildings of different sizes and costs, the number of buildings given to each state is also indicated in Table 48. The resulting regional differences are approximately the same as those in terms of the amount of money given. The Midwest received the most buildings and the Southwest the fewest. The Northeast received only a few in proportion to the population but it already had buildings, whereas the Southwest and the Southeast did not. The Midwest received more than eleven times as many buildings as did the Southwest, about three times as many as the Far West, and twice as many as the Northwest.

## NUMBER OF LIBRARIANS PER 100,000 POPULATION

The effectiveness of libraries is largely dependent upon the ability and resourcefulness of their professional staffs. Consequently, the number of librarians engaged in library activities per 100,000 population reflects in a very practical way the character of library service within the population area. In 1929, there were 31,234 librarians engaged in library service of various kinds in the United States. The data in Table 49 and the regional summary (Fig. 49) show the range in number of librarians per 100,000 population in that year. Unfortunately, these data are for 1929. Their inadequacy for the present is clearly indicated by the report, for example, of the Mississippi Library Commission for 1936, in which 151 librarians were listed as being in service on that date, as contrasted with the 74 shown in

<sup>&</sup>lt;sup>2</sup> R. M. Lester, *The Corporation: A Digest of Its Financial Record*, 1911–1936 (New York: Carnegie Corporation of New York, 1936), p. 238.

<sup>&</sup>lt;sup>3</sup> U.S. Office of Education, Statistics of Public, Society, and School Libraries, 1929, Bulletin 1930, No. 37 (Washington: Government Printing Office, 1931), p. 8.

<sup>4 &</sup>quot;Mississippi State Library Commission," Library News [Mississippi], I (No. 1, July-December, 1936).

TABLE 49\* LIBRARIANS PER 100,000 POPULATION, 1929

		Libra	_	
State	RANK	Total	Per 100,000 Population	Standard Score
California	I	3,304	58 2	2 44
Massachusetts	2	2,392	56 3	2 31
Rhode Island	3	357	51 9	2.00
Vermont	4	162	45 I	1.52
New Hampshire	5	209	44 9	1.52
Oregon	6	418	43 8	1.44
Ohio	7	2,731	41 1	1.25
Connecticut	8	653	40 6	1.22
Minnesota	9	869	33 9	0 75
Michigan	10	1,562	32 3	0.63
Maine	II	254	31 8	0.60
Wyoming	12	71	31 5	0.58
Illinois	13	2,398	31 4	0.57
Indiana	13 14	997	30.8	0.53
Utah	15	154	30.0	0.50
Washington	16	469	30 0	0.48
,    \	17	1,171	28.9	0.40
New Jersey	18	294	28 4	0.36
	18	1 -:	28 4	0.36
New York	20	3,578	28 3	_
	20 21	152	1	0.35
Wisconsin	21	800	27.2	0.20
Iowa		573	23 2	
Maryland	23	372	22 8	-0 03
Missouri	24	775	21.4	-0.13
Nevada	25	19	20 9	-0.16
Kansas	26	385	20 5	-0.19
South Dakota	<sup>27</sup>	140	20 2	-0.21
Idaho	28	76	17.1	-0 43
Delaware	29	40	16 8	-0.45
Nebraska	30	206	14 9	-0.57
Pennsylvania	30	1,443	14 9	-0.57
Arizona	32	59	13.5	-0.67
Oklahoma	33	3∞	12.5	-0 74
North Dakota	34	83	12 2	-0.77
Virginia	35	263	10.9	-0.86
New Mexico	36	43	10.2	-0.91
Kentucky	37	263	10 2	-0.92
Tennessee	38	265	IO I	-0.92
Florida	39	137	9 3	-0.97
North Carolina	40	292	9.2	-0 97
Texas	<b>4</b> I	471	8 1	-1.05
West Virginia	42	131	7.6	-1.09
Louisiana	43	146	6.9	-1.13
Georgia	44	181	6 2	-1.18
Alabama	45	162	6.1	-1 19
South Carolina	46	84	4.8	-1.28
Arkansas	47	70	3 8	-I 35
Mississippi	48	74	3.7	-ı 36
tt	•			1

<sup>\*</sup>Source. U.S. Off Educ, Statistics of Public, School, and Society Libraries, 1929, Bull 1930, No. 37 (Wash. Govt. Print. Off, 1931), p. 8.

Mean per 100,000 population (based on means of the 48 states), 23.2, standard deviation, 14.34; U.S. total, 31,234, U.S. librarians per 100,000 population (including District of Columbia), 25.4.

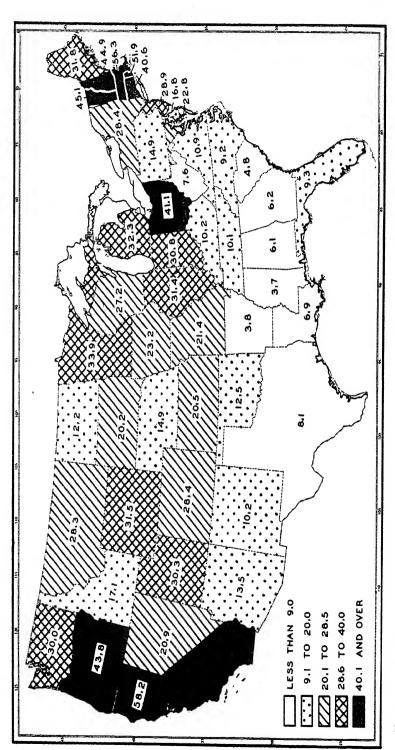


Fig. 48.—Librarians per 100,000 population, 1929. Source: Same as for Table 49. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

the table. Justification for their use is to be found in that no later data, by states, are available, and they fill out the pattern which data for other phases of library development in 1929, as collected on a nation-wide basis by the U.S. Office of Education, have revealed.

Data are available, however, which relate to the major professional library associations and organizations in the United States and Canada. The American Library Association had 13,782 members in the forty-eight states and the District of Columbia in 1937. Members from Canada and abroad increased the total to 14,204. This organization, founded in 1876,

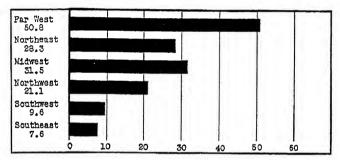


Fig. 49.—Regional summary of librarians per 100,000 population, 1929

has an endowment of \$2,194,645.39, maintains extensive headquarters in Chicago, and engages in an active advisory and publishing program. It is divided into various sections and round tables, has numerous committees and boards, and is directly affiliated with the American Association of Law Libraries, the Association of Research Libraries, League of Library Commissions, the National Association of State Libraries, and the Special Libraries Association. Other national library associations include the American Library Institute, the American Merchant Marine Library Association, the Association of America, the Catholic Library Association, the Medical Library Association, and the Music Library Association. Associations of librarians are also to be found in several major regions of the nation, in forty-seven states, in the District of Columbia, and in many cities. State trustees' organizations and state-wide citizen library groups are to be found in many states. All these agencies are concerned with the professional aspects of librarianship and with the promotion and improvement of library service throughout the nation.

## DISTRIBUTION OF LIBRARY SCHOOLS

The first school in the United States for the professional training of librarians was established at Columbia College (now University) in 1887. In 1915 the number of schools had grown to thirteen, of which ten were members of the Association of American Library Schools. The number of schools officially accredited by the American Library Association in 1936 was twenty-six. In addition to these accredited schools, there are other unaccredited schools, and from seventy-five to one hundred institutions, accredited and unaccredited, offer courses in library science in summer sessions.

Naturally, the effectiveness of the library program of a state or region is dependent in considerable measure upon the number of effectively trained men and women who enter the profession. Table 50 shows the distribution of the accredited schools and the number of prospective librarians enrolled during the year 1935-36. A number of schools which were formerly accredited by the American Library Association, or had membership in the Association of American Library Schools, but which have been transferred to other institutions, or discontinued, should be mentioned in addition to those listed in Table 50, as they contributed greatly to the development of library service in their regions and throughout the nation. These were the New York State (1887-1926), and New York Public Library schools (1911-26), now merged in the Columbia University School of Library Service; the Library School of the Carnegie Library of Atlanta (1905-30), now transferred to Emory University; the Library School of the Carnegie Library of Pittsburgh (1901-16), now a part of the Carnegie Institute of Technology; the library schools of the St. Louis (1917-32) and

TABLE 50\*
Accredited Library Schools, 1936

		E				
Schools by Region with Date of Founding	Түре†	First Year		Advanced		GRADU- ATES
		Full-time	Part-time	Full-time	Part-time	
Northeast: Albany, 1926 Columbia, 1887 Drexel, 1892 New Jersey, 1927 Pittsburgh, 1901 Pratt, 1890 Simmons, 1902 Syracuse, 1908	III I II III III III, III	32 70 29 16 20 28 73 11	44 97  3  65		19 	193 1,417 392 88 909 1,018 1,229 661
Midwest: Chicago, 1928 Illinois, 1893. Michigan, 1926 Minnesota, 1928 St. Catherine, 1929 Western Reserve, 1904 Wisconsin, 1906	III III III III	55 28 21 11 45 40	12 10 30 2 20	23 2 6 5	1 24 13 6	31 1,201 382 380 73 1,230
Southeast: Emory, 1905 Hampton (Negro), 1925 Louisiana, 1931 . North Carolina, 1931 Peabody, 1928	II II II, III II, III	42 14 21 28 34	 1 6 3			499 111 81 82 207
Northwest: Denver, 1931 Emporia, 1928	III	27 7	I4 			88 67
Southwest: Oklahoma, 1929	III	28	3			142
Far West: California, 1919 Washington, 1911	I II	51 31	3 6	3	7	574 512
Canada: McGill, 1927	II	18	1			115
Total	-					16,950

<sup>\*</sup> Source. "Accredited Library Schools," A L.A., Bull., XXX (1936), 327.

<sup>†</sup> Type I: comprises library schools which require at least a Bachelor's degree for admission to the first full academic year of library science, and/or which give advanced professional training beyond the first year.

year.

Type II. comprises library schools which give only the first full academic year of library science, and require four years of appropriate college work for admission.

Type III: comprises library schools which give only the first full academic year of library science, and do not require four years of college work for admission.

Los Angeles (1914-32) public libraries, discontinued; the Department of Library Science of the North Carolina College for Women (1928-33), now merged with the School of Library Science of the University of North Carolina; and the Department of Library Science of the University of Texas (1919-25), discontinued.

### STATE GOVERNMENT EXPENDITURES FOR LIBRARY PURPOSES

Expenditures for certain library purposes have long been considered necessary charges against state governments. Maintenance of state libraries has been the oldest of these, the first state libraries of Pennsylvania and New Jersey having been established in 1796. The state libraries of Ohio and New York were established in 1817 and 1818, respectively, and since then, and comparatively early in the existence of each of the fortyeight states, some sort of provision has been made for the maintenance of library service to state officers and legislators. Law and legislative reference libraries, state archives and historical commissions, state library commissions or divisions of the state department of education, or other departments charged with the duty of library promotion have long been regularly supported by state governments. The total spent for these purposes and for grants-in-aid to public and school libraries in 1931 (the latest year for which detailed information is given) was \$2,441,974, or two cents per capita for the nation. The range was from eleven cents per capita in Connecticut (\$171,-502) to less than one-half of one cent (\$2,000) in New Mexico. The highest total for any state was \$278,514 for New York, or two cents per capita.5 While the actual per capita expenditure has increased from one cent in 1915 to two cents in 1931, the total per cent of all expenditures for state government which this expenditure constitutes has dropped in the same period from four-tenths of one per cent in 1915 to two-tenths of one per cent in 1931.

<sup>&</sup>lt;sup>5</sup> U.S. Bureau of the Census, Financial Statistics of States, 1931 (Washington: Government Printing Office, 1933), pp. 24, 90.

In the promotion of public library service, however, the library commission or special division of the state department of education, or state library has been the state agency which has been specifically charged with this activity. Such organizations exist in forty-four states. Forty of them are maintained by regular state appropriations. Their principal functions have been: (1) to develop effective state-wide public library service through the formulation of legislation, the promotion of city, county, district or regional libraries, the administration of grants-in-aid to libraries, the provision of an advisory service to libraries; (2) to promote effective state-wide school library service; (3) to develop a high quality of library personnel through the training, certification, and placement of librarians; (4) to provide direct library service to individuals, groups, and schools; (5) to supply supplementary service to libraries; (6) to maintain a state reference and lending library for specialized service to government officials, the state legislature, the supreme court, and other governmental departments; (7) to encourage adequate library service in state institutions for dependents and delinquents; (8) to collect statistics and other data on the status of libraries; (9) to co-ordinate the library services of the state, and (10) to co-operate with the library agencies of other states and national library agencies.

Legislation authorizing grants-in-aid to public libraries (school district libraries) was first passed by New York in 1835, and actual provision was made for them through an appropriation of \$55,000 in 1838.7 The first library commission, however, set up to promote public library service and to administer restricted grants-in-aid for this purpose, was established in 1890 in Massachusetts. Since then, this function of government has been provided for in forty-four states, and grants-in-aid, either in the form of direct subsidies or grants of books, have been available to libraries in a number of states. In 1931, Pennsyl-

<sup>&</sup>lt;sup>6</sup> American Library Association, Library Extension Board, "The State Library Agency: Its Function and Organization" (Mimeographed; Chicago: American Library Association, 1937).

<sup>7</sup> Laws of the State of New York, 1835; 1838 (Albany: Printed by E. Croswell, Printer to the State, 1835; 1838), chap. 80; chap. 237, sec. 4.

vania appropriated \$20,000 for aid to county libraries, and in the biennium 1935–37, Illinois appropriated \$600,000 as an emergency fund to restock depleted book collections, and Ohio appropriated \$100,000 for similar purposes and to extend library service to areas that formerly had been without it. For the biennium 1937–39, appropriations for state library extension agencies were reported as follows in the early part of 1937: Arkansas, \$100,000; Georgia, \$35,000; Kansas, \$18,000; Missouri, \$28,570; Nebraska, \$40,000; New Mexico, \$14,000; North Carolina, \$40,545; North Dakota, \$19,150; Oregon, \$105,715; Vermont, \$25,000; and Washington, \$35,900. A grant-in-aid of \$150,000 for this biennium was made for libraries in Ohio, and of \$500,000 annually in Michigan. This grant marks the beginning of a continuing appropriation for library purposes. Legislation was pending in other states, and state library associations were actively engaged in promoting its enactment.

### INDICES OF LIBRARY DEVELOPMENT

The purpose of Part I of this publication has been to show the status of library development in the different states and regions of the United States. Chapters i-vi have demonstrated that although there is a strong tendency for the status of a given state or region to be consistent with respect to the various data which have been discussed, the extent of this correlation is hardly sufficient to justify the use of any one set of data as a general index for the status of library facilities for the nation as a whole. Each map presented up to this point must be considered, consequently, rather as representative of one phase of library development. The regional summaries appear somewhat more consistent; yet even they, taken singly, are not as representative of the whole as they should be. It has been necessary, therefore, to develop a combined index, or indices, which

<sup>&</sup>lt;sup>8</sup> American Library Association, Public Library Division, "State Grants to Libraries" (Mimeographed; Chicago: American Library Association, 1937), p. 14.

<sup>9</sup> Ibid. (Supplementary sheets).

TABLE 51\*
INDEX OF PUBLIC LIBRARY DEVELOPMENT, 1934

	•		T			
State	Rank	Per Cent of			INDEX OF PUBLIC LIBRARY	
		Population Served	Cırcula- tıon	Expendi- ture	Volumes	DEVELOP- MENT
Massachusetts	1	1 60	ı 87	3 27	1.82	2.31
New Hampshire	2	1.58	1.63	1.24	3 57	2.16
California	3	I 52	2 48	1 96	1.69	2.06
Connecticut	4	I 56	I 39	184	I OI	1.56
Vermont	5	I 32	I 20	0 44	2 69	1.52
Rhode Island	6	I 44	0 63	1.20	0 96	I I4
Wyoming	7	I.44	I 52	0 65	0 52	I.II
Ohio	8	1.32	0 65	1.58	0 07	0.98
New Jersey	9	1.40	0.82	1.20	0 16	0 96
Oregon	10	0 43	I.45	1.07	0 27	0.90
New York	11	1.09	0.36	1.33	0 16	0 80
Indiana	12	0 55	1.28	0.52	0 49	0 77
Delaware	13	1.60	0.36	0.52	0 15	0 71
Maine	14	0.58	0 55	-0.24	1.62	0 68
Nevada	15	0.31	0.04	0.35	1 62	0.63
Wisconsin	16	0 43	1 04	0 57	0 12	0 58
Washington	17	0.00	1 46	0 48	-0 03	0 52
Illinois	18	0 62	0.26	0 78	-0 07	0 43
Michigan	19	0.66	0 37	0 31	0 03	0 37
Utah	20	0 31	0.31	0 02	-0.04	0 16
Minnesota	21	0 04	0.23	0 35	-0 08	0 15
Colorado	22	-0 12	0.14	0.02	0.03	0 02
Iowa	23	-0 43	0 48	0.20	-0.11	-0 01
Maryland	24	0.82	-0 63	-0 15	-0.45	-0 11
Montana	25	-0 31	-0.17	-0.36	0.16	-0 18
Nebraska	26	-0.35	-0 09	-0.36	-0.05	-0 23
Missouri	27	<b>−</b> 0 35	-0 33	-0.28	-0.40	-0.37
Pennsylvania	28	-0 15	-o 55	-0 19	-0.56	-0 39
Arizona	29	0.20	-0.49	-0.99	-0.55	-0.50
Kansas	30	-0.47	-0 43	-0.49	-0.49	-0 51
South Dakota	31	-1.09	<b>-0</b> 37	-0 40	-0 40	-0.60
Idaho	32	-1.05	-0 35	-0.53	-0.41	-0.64
Oklahoma	33	-O 22	-0 54	-0.87	-0.76	-0.81
Tennessee	34	-0.66	-0 80	<b>-0</b> 79	-0.80	-0 82
Florida	34	-0.74	-0 83	-0.74	<b>−</b> ○ 73	-0.82
Virginia	36	-1.01	-1 04	<b>-</b> 0 96	-0.29	-0.90
Texas	37	-0.93	-0 91	-0 87	-o.88	<b>-</b> 0 97
North Carolina	37	-0.54	-1.10	-I.04	-0 92	-0.97
Kentucky	39	-0.85	-1.09	-0.87	-0 8 <sub>5</sub>	-0 99
South Carolina	40	-0.74	-1.27	-0.87	-I O2	-1 06
Louisiana	41	-o 82	-1 12	-I 04	-0 93	-1.06
New Mexico	42	10.1	-1.09	-1 08	<b>-0</b> 76	-1 07
North Dakota	43	-1 55	-0.89	-0 87	-0.79	-1 11
Alabama	44	-1 05	-1.16	-1.04	<b>−</b> 0 97	-1 14
Georgia	44	-1.17	-1.14		1	-1.14
Mississippi	46	-1.09	-1.39		-1.05	
West Virginia	47	-ı 83	-1.26		-1.01	
Arkansas	. 48	-I 7I	-I 38	-I 2I	-1.05	-1.45
			1	1	1	1

<sup>\*</sup>Source: Compiled from standard scores of Table 2 (Per cent of population of each state residing in local public library districts), 19 (Per capita expenditure for public libraries), 30 (Per capita circulation of public libraries), and 9 (Volumes per capita in public libraries).

will more nearly represent the true state of library development than could any one set of data. In the remaining pages of this chapter indices are presented which gather together the more significant factors considered in previous chapters and fix, fairly conclusively, the pattern of library development in America today.

To this end, two such indices of library development have been computed. The first is based upon statistics published by the American Library Association in 1935, and relates to public library development only. The other is based upon data published by the U.S. Office of Education in 1931, and concerns libraries in general, including public libraries, for the year 1929. These indices are presented in tables, maps, and regional summaries. In later chapters where references are made to the index of library development, they refer to the index of public libraries for 1934.

Table 51 and Figures 50 and 51 relate to public libraries only. They are based on the standard scores of each state with respect to (1) per cent of population served, (2) per capita circulation, (3) per capita expenditure, and (4) volumes per capita. The final column in Table 51 is an adjusted average of the preceding four items and may be considered the unweighted index of library development combining the four separate factors. These four have been used because, in an extensive study of them and of other factors entering into library development, they were found to be the most significant—per capita expenditure being, perhaps, primarily so. 14

<sup>10 &</sup>quot;Public Library Statistics," American Library Association, Bulletin, XXIX (1935), 252-55.

<sup>&</sup>lt;sup>11</sup> U.S. Office of Education, Statistics of Public, Society, and School Libraries, 1929, pp. 1-365.

<sup>&</sup>lt;sup>12</sup> The adjusted average in this instance is the actual average of the four standard scores converted into one standard score.

<sup>&</sup>lt;sup>13</sup> G. F. Purdy, "Public Library Service in the Middle West" (Unpublished Ph.D. dissertation, Graduate Library School, University of Chicago, 1936).

<sup>&</sup>lt;sup>14</sup> The degree of consistency in the four sets of data may readily be seen from the table. Alabama affords an excellent example, Connecticut, likewise.

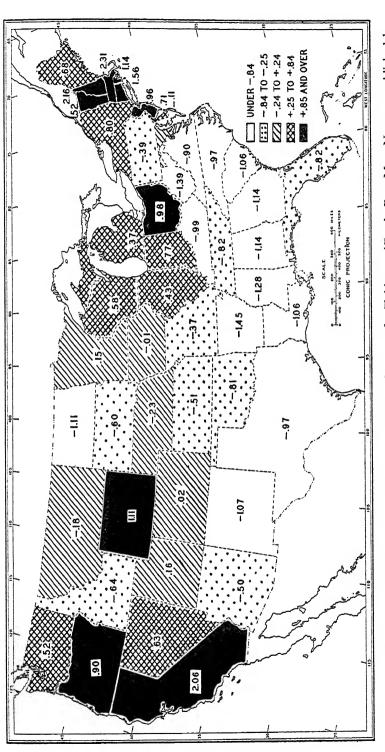


Fig. 50.—Index of public library development, 1934. Source: Same as for Table 51. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

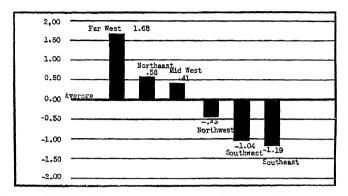


Fig. 51.—Regional summary of index of public library development, 1934

TABLE 52\* INDEX OF LIBRARY DEVELOPMENT, 1929

State	Rank	Standard Score	State	Rank	Standard Score
California	1 2 3 4 5 6 7 8	2 31 2 29 1 86 1 66 1 59 1 17 0 98 0 92	Kansas	25 26 27 28 29 30 31 32 32	-0 19 -0.21 -0 24 -0 26 -0 43 -0 46 -0.56 -0.60
Ohio Minnesota Wyoming Washington Colorado Wisconsin New Jersey Illinois Utah Maine Nevada Michigan Iowa Montana Delaware	9 10 11 12 13 14 15 16 17 18 19 20 21 22 22 24	0 90 0 79 0 76 0 75 0 68 0 .51 0 49 0 47 0 41 0 .39 0 35 0 27 0 15	North Dakota Texas Florida North Carolina New Mexico Tennessee Virginia West Virginia Kentucky Louisiana Georgia Alabama Arkansas South Carolina Mississisppi	31 33 36 36 38 39 41 42 43 44 45 46 48	-0 68 -0 93 -0 95 -0 95 -0 96 -0 97 -0 99 -1 04 -1 17 -1 22 -1 25 -1 42 -1 49

<sup>\*</sup> Source: Compiled from data from U.S. Off. Educ., Statistics of Public, Society, and School Libraries,

<sup>7929.</sup>The index is based on the following six items, equally weighted: per cent of population registered, per capita annual circulation, per capita annual total expenditure, per capita annual expenditure for books, number of volumes held per capita, number of volumes added per capita in one year.

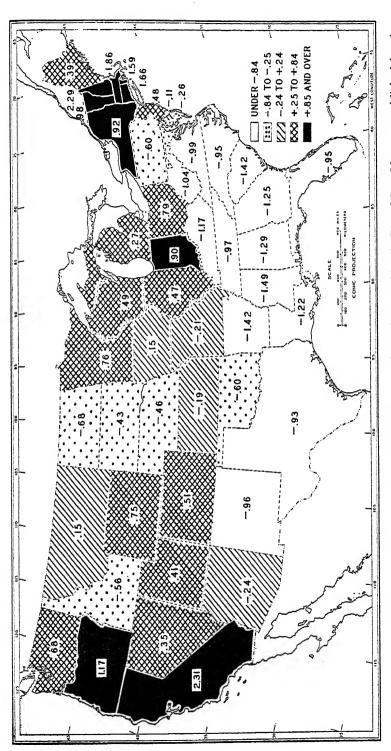


Fig. 52.—Index of library development, 1929. Source: Same as for Table 52. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

The regional summary (Fig. 51) is particularly revealing in that it shows, at a glance, the degree to which public libraries have been developed above, or below, the average in each of the six regions. If this summary and the regional summary for the per cent of the rural population of each state residing in public library districts (Fig. 8) are looked at together, they will be seen to give the answer to the question with which Part I of this publication began: How evenly are libraries and library resources distributed throughout the United States? Their ac-

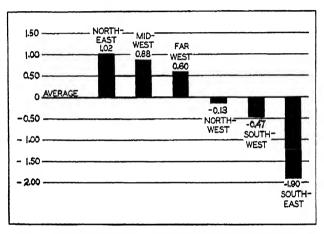


Fig. 53.—Regional summary of index of library development, 1929

cessibility varies widely from community to community, county to county, state to state, and region to region, and for approximately 40,000,000 residents of rural America library service through the local free, tax-supported library does not exist at all.

Table 52 and Figures 52 and 53 are based on: per cent of population registered, per capita annual circulation, per capita annual total expenditure, per capita annual expenditure for books, volumes per capita held, and volumes per capita added annually, for all libraries of all types (including public) in 1929.

Table 53 and Figure 54 show the ranking of the counties of Illinois on the basis of a composite index of public library development containing eight separate elements. Nine counties

TABLE 53\* INDEX OF LIBRARY DEVELOPMENT, ILLINOIS

County	Rank	Standard Score	County	Rank	Standard Score
Kane	ı	2 40	McHenry	44	-0.14
Warren	ī	2 40	Madison	46	-0.15
Henry	3	2.13	Douglas	47	-0.16
Piatt	4	2 02	Lawrence	48	-0.18
Knox	5	1.99	Kendall	49	-0.20
Lake	5	1.99	Edgar	50	-0.25
Rock Island	7	1.84	Mason	51	-0.27
Peoria	8	1.76	Bureau	52	-0.30
Winnebago	9	I 47	Grundy	53	-0.43
Alexander	10	1.37	Crawford	54	-0.47
Sangamon	II	1.35	Lee	55	-0.48
Stephenson	12	1.21	Christian	56	-0.49
De Kalb	13	1.18	Cass	57	-0.50
Cook	14	1.03	Marion	58	-0.52
Du Page	14	1.03	Menard	59	-0.55
Morgan	16	0.97	Marshall	60	-0.57
Macon	17	0.91	Jersey	61	-0.66
Champaign	18	0.84	Fulton	62	-o.68
Stark	19	0.83	Massac	63	-0.73
McLean	20	0.82	Richland	64	-0.81
La Salle	21	0.73	Montgomery	65	-0.82
Carroll	22	0.57	Williamson	66	-0.87
Adams	23	0.55	Woodford	66	-0.87
De Witt	24	0.52	Mercer	68	-o.88
Whiteside	25	0 41	Franklin	69	-0.95
Vermilion	26	0.38	Saline		-0.99
Hancock	27	0.35	Scott		-0.99
Greene	28	0.30	Pike		-1.00
Brown	29	0.26	Edwards	74	-I 02
Kankakee	29	0.26	Jefferson	I	-I.02 -I 02
Logan	1	0.23	Shelby	74	-1.07
Coles		0.21	Bond	76	-1.07
Jo Daviess	1	0.16	Moultrie	76 78	-1.07
Tazewell		0.15	11	1	-1.16
McDonough	1	0.09	Schuyler	79 80	-1.10
Ogle	35	0.09	Macoupin	81	-1.23
Ford	, ,	0.07	Fayette Jackson	1	-1.27
Wabash		0.07	Wayne		-1.34
Cumberland		0.04	White	1 ~	-1.38
Boone	1	-0.05	Clay	1 -	-1.45
Will		-0.05 -0.06	Randolph		-1.51
Iroquois		-0.II	Johnson		-1.82
St. Clair	43	-0.11 -0.14	Johnson	1	
Livingston	44	0.14			
	1	1	0		

<sup>\*</sup>Source: Adapted from data in Ill. State Lib., Lib. Ext. Div., Report for January 1, 1928 to December 31, 1929; 1930–31; 1932–33; Ill. State Lib., Lib. Ext. Div., Statistics of the Libraries of Illinois, 1930; 1932. Nine counties have no libraries, and for six the data are incomplete. Index computed from data covering (1) per cent of population served, (2) per cent of population registered, (3) tax support, (4) expenditures for books, periodicals, and bindings, (5) expenditures for salaries, (6) holdings, (7) additions, 1929–32, and (8) circulation.

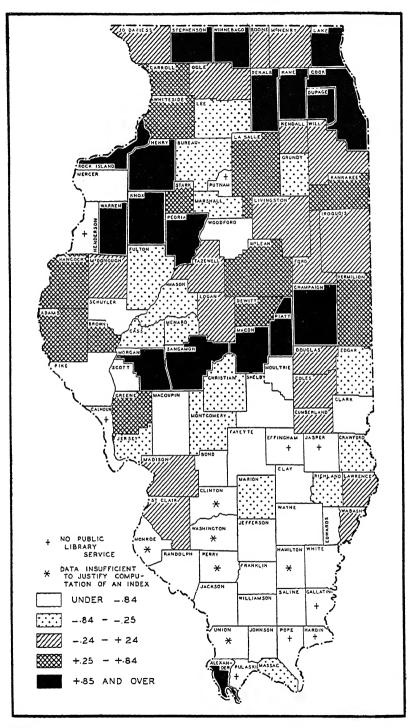


Fig. 54.—Index of library development, Illinois. Source: Same as for Table 53

possessed no public libraries for the period covered by the table, and comparable data were not available for another six. Data for such library service as has been provided by the Works Progress Administration since 1936 are not included. The comparative lack of library facilities in the southern half of the state is sharply brought out in the map. In this respect, the variation within the state corresponds, in the main, with the variation of library facilities in other states and in the nation, generally, except that no state fails to possess some public library facilities, whereas counties and other political units within states frequently do not possess them.

#### SUMMARY

The purpose of Part I of this study, as stated at the outset, was to take inventory of the library resources of America. It was to determine as accurately as possible the extent to which the library is available to Americans as an effective instrument in maintaining and promoting a clear understanding of the problems with which citizens are confronted in a highly complex, dynamic democracy. It was to show how equally, or unequally, the one hundred and twenty odd million inhabitants of the nation share in those benefits which the library has to confer upon those who find a more intelligent, more satisfying way of life through books.

The major facts in this inventory may be summarized as follows:

1. Public libraries.—On the credit side it may be set down that in 1934, 6,235 public libraries served population areas in which 77,644,948 people lived. They owned 100,470,215 volumes and circulated 449,998,845 volumes to 26,000,000 borrowers. The expenditure for their support was \$45,855,400, or 37 cents per capita, for the entire population, or 59 cents per capita for the population actually served. On the debit side it appears that approximately 45,000,000 people, or 37 per cent of the entire population, had no public library service. Of these 39,500,000 lived in rural areas and 5,500,000 in cities. Of the

45,000,000 without service, approximately one-half lived in the Southeast and Southwest, and approximately 8,000,000 were Negroes.

- 2. College and university libraries.—For the use of the student in American colleges and universities library resources have been steadily developed, and since 1900 they have been increased very rapidly. The inequality which existed between them and the resources of comparable libraries abroad has been greatly reduced, and through the development of the film this inequality is in the way of being even further reduced. Fourteen hundred and sixty such libraries contained 52,919,063 volumes in 1931–32 and spent an estimated \$18,965,067 for their maintenance and development. Harvard University library has the pre-eminence in this field, with a total collection in 1935–36 of 3,795,502 volumes and an average annual addition from 1919–1920 through 1934–35 of 111,241 volumes. The northeast quarter of the nation is equipped particularly well with libraries of this kind.
- 3. State and federal libraries.—Since the beginning of the state and national governments, libraries have been provided for governmental purposes. State libraries exist in every one of the 48 states, and in 1935 there were 135 state library agencies of one kind or another which altogether contained a total of 12,000,000 volumes. The Library of Congress, the major libraries of the federal government located in the District of Columbia, and libraries serving federal departments, agencies, and organizations there and elsewhere, have been developed with great success and serve the nation in many admirable ways. Mr. Hill lists the total number of such libraries in Washington, alone, at 166: they contained 10,830,900 volumes in 1934. Greater cooperation among the existing libraries, the extension of their bibliographical resources, and assistance in the development of additional resources in regions now without such aids, would

<sup>&</sup>lt;sup>15</sup> American Library Association, Special Committee on Federal Relations, op. cit., p. 3<sup>2</sup>.

greatly promote the work of students and scholars throughout the nation.

- 4. Special libraries.—Special libraries, designed particularly to serve commercial and industrial interests, have been rapidly developed since 1900. The Special Libraries Association lists 1,475 libraries which contained 27,038,113 volumes in 1934.
- 5. School libraries.—The inventory of school libraries has both a favorable and an unfavorable side. Where school libraries have been developed properly they are contributing greatly to the enrichment of the educational program of the schools and should assist the oncoming generation to use print effectively in gaining an intelligent understanding of the present changing social order. Of 103,081 public elementary and secondary schools reporting in 1934–35, 61,390 were served by classroom or centralized libraries. Twenty-seven thousand, seven hundred, and sixty-six of these schools enroling 7,214,321 of a total of 12,501,017 pupils, had centralized libraries which contained 28,612,500 volumes. These data covered only 50 per cent of city and 30 per cent of the rural schools of the entire country.

Taken altogether, the data presented in this and preceding chapters bring into sharp relief the library map of the nation. They show convincingly that reading in the United States, in so far as it is influenced by the presence or absence of libraries, conforms to certain well-defined boundaries. They reveal areas and regions in which the library in its various forms is largely lacking; other areas and regions in which it is unevenly and inadequately developed; and still others in which it is highly concentrated and so equipped and supported that it is abundantly able to contribute to the economic, social, intellectual, and cultural development of America.



## PART II

# DISTRIBUTION OF OTHER FACILITIES FOR EDUCATION AND COMMUNICATION



#### CHAPTER VIII

## BOOKSTORES, RENTAL LIBRARIES, AND BOOK CLUBS

ATTEMPT was made in Part I to answer the question: How evenly are libraries and library resources distributed throughout the United States? In Part II an attempt is made to answer a second question: Is the marked inequality in the distribution of library resources shown in Part I accompanied by a similar inequality in the status of other social, educational, and cultural institutions and organizations and media of communication which may be thought of as bearing a relationship to library development?

Tables, maps, and regional summaries will be used in answering this question in the same way in which they were employed in Part I. The share which these organizations and media of communication may have in causing or promoting library development will be reserved for consideration in Part III, which is devoted to general consideration of causes responsible for the variation seen in Part I.

### THE NATION'S TOTAL BOOK PRODUCTION

The ancient clay tablet, or papyrus, or manuscript, was a medium for the communication of ideas. It was limited largely, however, to the prince or temple, monastery, library, or friend for whom it was prepared. It was only after the invention of printing that the book, the successor of all these forms of writing, became the first medium of mass communication, antedating the newspaper, the magazine, and the much more recent radio and moving picture.

Strangely enough, however, agencies for the publication and sale of books are limited in comparison with those for

the communication of ideas through other media; and the annual production and sale of books, while seemingly extensive when looked at from the point of view of totals, are, by comparison, extremely limited. Mr. Duffus, in writing of this fact, says: "Newspapers and magazines are heavy lines in our cultural patterns, whereas books as yet are but faint traceries." In this statement he gave apt expression to a situation which had been noted by a writer in *The Outlook* over twen-

TABLE 54\*
GROSS BOOK PRODUCTION, 1929-35

Production	1929	1930	1931	1932	1933	1934	1935
New book titles	8,342	8,134	8,506	7,556	6,813	6,788	6,914
Net change .		-208	342	-950	-743	-25	126
New editions and re- printings	1,845	1,893	1,801	1,479	1,279	1,410	1,852
Net change		48	-92	-422	-200	131	442
Total number of titles printed	10,187	10,027	10,307	9,035	8,092	8,198	8,766
Net change		-160	280	-1,272	-943	106	568
Total number of copies	214,334,423†	•	154,461,622‡		110,789,913†		140,651,953‡

<sup>\*</sup>Source Summaries for book production of these years are found in the *Publishers' Weekly*, CXVII (January 25, 1930); CXIX (January 24, 1931), CXXI (January 23, 1932), CXXIII (January 21, 1933), CXXV (January 20, 1934); CXXVII (January 19, 1935), CXXIX (January 18, 1936)

ty years earlier, and also in another article, in 1913, by Mr. Wyer.<sup>3</sup>

Tables 54 and 55 present data concerning the book industry in the United States from 1929 to 1935. Table 54 shows the new titles printed, the new editions issued, and the totals of all titles published annually during the period. Table 55 carries

- <sup>1</sup> R. L. Duffus, *Books: Their Place in a Democracy* (Boston: Houghton Mifflin Company, 1930), p. 4.
- <sup>2</sup> J. C. Dana, *Libraries: Addresses and Essays* (White Plains, N.Y.: H. W. Wilson Company, 1916), pp. 111-12, 292-93.
- <sup>3</sup> J. I. Wyer, Jr., "What Americans Read," Bulletin of the New Hampshire Public Libraries, IX (1913), 161-70.

<sup>†</sup> Source U.S. Bur. Census, "Census of Manufactures 1935, Printing and Publishing" (Mimeo release, Industries Nos. 508 and 510; April 14, 1937), p. 9.

<sup>‡</sup> Source U.S. Bur Census, Biennial Census of Manufactures 1933 (Wash Govt Print Off, 1936), p. 303.

the information farther for the single year, 1933—the trough year of the depression—and estimates the gross sales of different classes of books during that year. From these tables it is clear that the total number of books published in 1933 (110,789,913) showed a great reduction from that of the peak for 1929 (214,-334,423). The tables also indicate that if the total cost of the books produced in 1933 (\$109,000,000) had been distributed on a per capita basis for the entire population, there would have

#### TABLE 55\*

#### ESTIMATED BOOK SALES BY DIFFERENT BRANCHES OF THE BOOK INDUSTRY, 1933

1. Elementary and high school text	book
publishers†	
2. College textbook publishers†	
3. Trade book publishers†	
4. Subscription book publishers 1	
5. Medical book publishers†	
6. Law book publishers‡	
7. Bible publishers (exclusive of free dist	
tion)†	
8. Play publishers‡	1,000,000
Total	\$100,000,000

<sup>\*</sup> Source: Correspondence from Mr. John O'Connor furnished an estimate of the sales of books published in 1933, made on the basis of data used in code hearings before the N.R.A. Data in the U.S. Census on "Printing and Publishing" cover both books and pamphlets, but do not give the amounts for each separately.

† At net wholesale prices. 1 At retail prices.

been that year available to each American slightly less than one new book, of which the wholesale price would have approximated 89 cents.4

#### DISTRIBUTION THROUGH BOOKSTORES

The part which the bookstore, in its various forms, plays in the distribution of books has been made the object of study far less frequently than that played by the library. Who its patrons are, how many volumes per capita are sold by it, what the annual per capita expenditure is for its wares—these, and many

<sup>4</sup> Correspondence with Mr. John O'Connor, of the W F. Quarrie and Company, 35 East Wacker Drive, Chicago, Illinois, April, 1936.

other questions concerning its range and extent, have only now and then been analyzed.<sup>5</sup>

Similarly, the relation between bookstores and libraries has not been carefully scrutinized. Is the bookstore, like the library, largely an urban institution? Do bookstores flourish where libraries do not, and in that respect take the place of libraries? Do libraries stimulate the purchase of books? Does the purchase of books decrease library use? Do people of different economic status make different uses of bookstores and libraries? Is there co-operation between libraries and bookstores in elevating taste in reading and in stimulating reading interest? These, and other questions concerning the relations which exist between these two media for the circulation and use of books, have only occasionally been made the subject of detailed study.

Certain facts, however, are known concerning the bookstore. The most significant of these is that the total number listed in 1935 was 6,000,7 or 235 less than the total number of public libraries; that the total output of books by publishing houses in 1933 was 110,789,913 copies; that the total number of pamphlets issued the same year was 143,487,479;8 and that the total value of the books published in 1933, not including pamphlets, was estimated to be \$109,000,000.9

<sup>5</sup> Cf., O. H. Cheney, Economic Survey of the Book Industry, 1930–1931 (New York: National Association of Book Publishers, 1931); American Booktrade Directory, 1935 (New York: R. R. Bowker Company, 1935).

In the tables which follow, based on this *Directory*, consideration is limited to the bookstores, rental libraries, and juvenile departments which are included in that list. Obviously, many very small units are not included, but, of necessity, some standard list had to be used.

- <sup>6</sup> Cf., R. A. Miller, "The Relation of Reading Characteristics to Social Indexes," *American Journal of Sociology*, XLI (1936), 738-56; R. E. Ellsworth, "The Distribution of Books and Magazines in Selected Communities" (Unpublished Ph.D. dissertation, Graduate Library School, University of Chicago, 1937); W. C. Haygood, "Who Uses The Public Library" (MS in Press).
  - <sup>1</sup> American Booktrade Directory, 1935, p. 38.
- <sup>8</sup> U.S. Bureau of the Census, *Biennial Census of Manufactures: 1933* (Washington: Government Printing Office, 1936), p. 303. (Error in number of books reported corrected in mimeographed reprint.)
  - 9 Correspondence with John O'Connor, April, 1936.

TABLE 56\*
GROSS NUMBER OF BOOKSTORES PER 1,000,000 POPULATION, 1935

Rank   Rank   Per 1,000,000   Score   Rhode Island   I   92   133.82   3.02   Vermont   2   42   116 79   2.41   Nevada.   3   10   109 82   2.16   New Hampshire   4   45   96.71   1.69   Connecticut   5   145   90.24   1   46   Washington   6   137   87.63   1.37   New York   7   1,078   85.64   1.30   California.   8   471   82.96   1.21   Maine.   9   61   76.50   .98   Idaho   10   32   71 90   0.81   Massachusetts   II   301   70.83   0.77   Colorado   I2   69   66.62   0.62   Orgon   13   52   54.52   0.19   Illinois   I4   407   53.34   0.15   New Jersey   15   210   51.96   0.10   Arizona   16   22   50.51   0.05   Florida   17   72   49.04   0.00   Pennsylvania   18   463   48.07   -0.04   Ohio   19   314   47.24   -0.07   Montana   20   25   46.50   -0.09   Iowa   21   113   45.73   -0.12   Indiana   22   144   44   44   44   44   45   60   12   Indiana   22   144   44   44   44   60   17   Kansas   23   83   44.13   -0.18   Maryland   23   72   244.13   -0.18   Maryland   23   73   -0.25   Missouri   26   157   43.26   -0.21   Missouri   26   157   43.26   -0.21   Missouri   26   157   43.26   -0.27   -0.77   -0.77   -0.77   -0.77   -0.77   -0.77   -0.77   -0.77   -0.77   -0.77   -0.77   -0.77   -0.77   -0.77   -0.77   -0.77   -0.77   -0.77   -0.77   -0					
Number   Per LocayOoc   Score   Population   Population   Score   Population	Sman	_	Воок	Carre	
Vermont.         2         42         116 79         2.41           New Ada.         3         10         109 82         2.16           New Hampshire         4         45         96.71         1.66           Connecticut         5         145         90.71         1.46           Washington.         6         137         87.63         1.37           New York.         7         7,078         85 64         1.30           California.         8         471         82 96         1.21           Maine.         9         61         76.50         0.98           Idaho.         10         32         71 90         0.81           Massachusetts.         11         301         70 83         0.77           Colorado.         12         69         66 62         0 62           Oregon.         13         52         52         0.19           Illinois.         14         407         53 34         0.15           New Jersey.         15         210         51 96         0.10           Arizona.         16         22         55 1         0.05           Florida.         17         72	STATE	Kang	Number	Per 1,000,000 Population	Score
Vermont.         2         42         116 79         2.41           New Ada.         3         10         109 82         2.16           New Hampshire         4         45         96.71         1.66           Connecticut         5         145         96.71         1.66           Washington.         6         137         87.63         1.37           New York.         7         7,078         85.64         1.30           California.         8         471         82.96         1.21           Maine.         9         61         76.50         0.98           Idaho.         10         32         71.90         0.81           Massachusetts.         11         301         70.83         0.77           Colorado.         12         69         66.62         0.62           Oregon.         13         52         54.52         0.19           Illinois.         14         407         53.34         0.15           New Jersey.         15         210         51.96         0.10           Arizona.         16         22         50.51         0.05           Florida.         17         72<	Rhode Island	I	02	122 82	2.02
New Hampshire  New York  New Jesse  New York  New Jesse  New Mexico  New Jesse  New Mexico  North Dakota  North Carolina  North Car	Vermont				
New Hampshire         4         45         96.71         1.69           Connecticut         5         145         90.24         1 46           Washington         6         137         87.63         1.37           New York         7         1,078         85.64         1.30           California         8         471         82.96         1.21           Maine         9         61         76.50         0.98           Idaho         10         32         71.90         0.81           Massachusetts         11         301         70.83         0.77           Colorado         12         69         66.62         0.62           Oregon         13         52         54.52         0.19           Illinois         14         407         53.34         0.15           New Jersey         15         210         51.96         0.10           Arizona         16         22         50.51         0.05           Florida         17         72         49.04         0.00           Pennsylvania         18         463         48.07         -0.05           Florida         17         72	Nevada	3	1		
Connecticut         5         145         90.24         1 46           Washington         6         137         87.63         1.37           New York         7         1,078         85.64         1.30           California         8         471         82.96         1.21           Maine         9         61         76.50         0.98           Idaho         10         32         71.90         0.81           Massachusetts         11         301         70.83         0.77           Colorado         12         69         66.62         0.62           Oregon         13         52         54.52         0.19           Illinois         14         407         53.34         0.15           New Jersey         15         210         51.96         0.10           Arizona         16         22         50.51         0.05           Florida         17         72         49         0         0           Pennsylvania         18         463         48.07         0.04           Ohio         19         314         47.24         0.07           Montana         20         25 <td>New Hampshire</td> <td></td> <td>1</td> <td></td> <td>1</td>	New Hampshire		1		1
Washington.         6         137         87.63         1.37           New York.         7         1,078         85.64         1.30           California.         8         471         82.96         1.21           Maine.         9         61         76.50         0.98           Idaho.         10         32         71.90         0.81           Massachusetts.         11         301         70.83         0.77           Colorado.         12         69         66.62         0.62           Oregon.         13         52         54.52         0.19           Illinois.         14         407         53.34         0.15           New Jersey.         15         210         51.96         0.10           Arizona.         16         22         50.51         0.05           Florida.         17         72         49.04         0.00           Pennsylvania.         18         463         48.07         -0.04           Ohio.         19         314         47.24         -0.07           Montana.         20         25         46.50         -0.09           Iowa.         21         113 <td>Connecticut</td> <td></td> <td></td> <td></td> <td>) -</td>	Connecticut				) -
New York. 7 1,078 85 64 1.30 California. 8 471 82 96 1.21 Maine. 9 66 76.50 0.98 Idaho. 10 32 71 90 0.81 Massachusetts. 11 301 70 83 0.77 Colorado. 12 69 66 62 0.62 Oregon. 13 52 54 52 0.19 Illinois. 14 407 53 34 0.15 New Jersey 15 210 51 96 0.10 Arizona. 16 22 50 51 0.05 Florida. 17 72 49 04 0 00 Pennsylvania 18 463 48 07 00 04 Ohio. 19 314 47 24 00 00 Pennsylvania. 20 25 46.50 0.09 Iowa. 21 113 45.73 00 12 Indiana. 22 144 44 66 0.17 Kansas. 23 83 44.13 0.18 Maryland 23 72 44.13 0.18 Maryland 23 72 44.13 0.18 Maryland 23 72 44.13 0.18 Missouri 26 157 43.26 0.21 Wisconsin. 27 124 42.19 0.25 Delaware. 28 10 41.95 0.25 Minnesota 30 105 40.95 0.29 Michigan. 31 181 37 38 0.42 Virginia. 32 90 37.16 0.43 New Mexico. 33 14 33.07 0.57 Texas. 34 160 27 47 0.77 South Dakota. 37 18 26 44 0.81 Oklahoma 38 61 25.46 0.84 New Mexico. 33 14 33.07 0.57 Texas. 34 160 27 47 0.77 South Dakota. 37 18 26 44 0.81 Oklahoma 38 61 25.46 0.84 West Virginia 39 41 23 71 0.99 Arkansas. 40 43 23 19 0.99 Wyoming 41 5 22 17 0.96 Kentucky 42 57 21.80 0.97 North Carolina 43 66 20 82 1.01 South Carolina 44 36 60 36 17 13 -1.14 Alabama. 47 34 12.85 -129	Washington	Ğ			•
California.         8         471         82 96         1.21           Maine.         9         61         76.50         0.98           Idaho.         10         32         71 90         0.81           Massachusetts.         11         301         70 83         0.77           Colorado.         12         69         66 62         0 62           Oregon.         13         52         54 52         0.19           Illinois.         14         407         53 34         0.15           New Jersey.         15         210         51 96         0.10           Arizona.         16         22         50 51         0.05           Florida.         17         72         49 04         0.00           Pennsylvania.         18         463         48 07         -0 04           Ohio.         19         314         47 24         -0 07           Montana.         20         25         46.50         -0 09           Iowa.         21         113         45.73         -0 12           Indiana.         22         144         44 46         -0 17           Kansas.         23         83	New York	7	,	, , ,	
Maine.         9         61         76.50         0.98           Idaho.         10         32         71 90         0.81           Massachusetts.         11         301         70 83         0.77           Colorado.         12         69         66 62         0 62           Oregon.         13         52         54 52         0.19           Illinois.         14         407         53 34         0 15           New Jersey.         15         210         51 96         0 10           Arizona.         16         22         50 51         0.05           Florida.         17         72         49 04         0 00           Pennsylvania         18         463         48 07         -0 04           Ohio.         19         314         47 24         -0 07           Montana.         20         25         46.50         -0 09           Iowa.         21         113         45.73         -0 12           Indiana.         221         113         45.73         -0 12           Indiana.         22         144         44 46         -0 17           Kansas.         23         83	California		,		_
Idaho	Maine	9			1
Massachusetts.         11         301         70 83         0.77           Colorado         12         69         66 62         0 62           Oregon         13         52         54 52         0.19           Illinois         14         407         53 34         0 15           New Jersey         15         210         51 96         0 10           Arizona         16         22         50 51         0.05           Florida         17         72         49 04         0 00           Pennsylvania         18         463         48 07         -0 04           Ohio         19         314         47 24         -0 07           Montana         20         25         46.50         -0 09           Iowa         21         113         45.73         -0 17           Kansas         23         83         44.13         -0 18           Maryland         23         72         44.13         -0 18           Maryland         23         72         44.13         -0 18           Missouri         26         157         43.26         -0 21           Wisconsin         27         124	Idaho	10	32		-
Colorado.         12         69         66 62         0 62           Oregon.         13         52         54 52         0.19           Illinois.         14         407         53 34         0 15           New Jersey.         15         210         51 96         0 10           Arizona.         16         22         50 51         0.05           Florida.         17         72         49 04         0 00           Pennsylvania.         18         463         48 07         -0 04           Ohio.         19         314         47 24         -0 07           Montana.         20         25         46.50         -0 09           Iowa.         21         113         45.73         -0 12           Indiana.         221         114         44 46         -0 17           Kansas.         23         83         44.13         -0 18           Maryland         23         72         44.13         -0 18           Utah         25         22         43.32         -0 21           Missouri         26         157         43.26         -0 21           Missouri         26         157		rı		1 7 5	1
Illinois		12		, , ,	1
New Jersey         15         210         51 96         0 10           Arizona         16         22         50 51         0.05           Florida         17         72         49 04         0 00           Pennsylvania         18         463         48 07         0 04           Ohio         19         314         47 24         0 07           Montana         20         25         46.50         0 09           Iowa         21         113         45.73         0 12           Indiana         22         144         44 46         0 17           Kansas         23         83         44.13         0 18           Utah         25         22         43.32         0 21           Missouri         26         157         43.26         0 21           Wisconsin         27         124         42.19         0 25           Nebraska         29         57         41 37         0 26           Nebraska         29         57         41 37         0 28           Minnesota         30         105         40 95         0 29           Michigan         31         181         37 38 <td>Oregon</td> <td>13</td> <td>52</td> <td>54 52</td> <td>0.19</td>	Oregon	13	52	54 52	0.19
New Jersey.         15         210         51 96         0 10           Arizona.         16         22         50 51         0.05           Florida.         17         72         49 04         0 00           Pennsylvania.         18         463         48 07         0 04           Ohio.         19         314         47 24         -0 07           Montana.         20         25         46.50         -0 09           Iowa.         21         113         45.73         -0 12           Kansas.         23         83         44.13         -0 18           Maryland.         23         72         44.13         -0 18           Maryland.         23         72         44.13         -0 18           Missouri.         26         157         43.26         -0 21           Wisconsin.         27         124         42.19         -0.25           Nebraska.         29         57         41 37         -0 28           Minnesota         30         105         40 95         -0 29           Michigan.         31         181         37 316         -0 43           New Mexico.         33	Illinois	14	407	53 34	0 15
Florida.	New Jersey	15	210		
Pennsylvania         18         463         48 07         -0 04           Ohio         19         314         47 24         -0 07           Montana         20         25         46.50         -0 09           Iowa         21         113         45.73         -0 12           Indiana         22         144         44 46         -0 17           Kansas         23         83         44.13         -0 18           Maryland         23         72         44.13         -0 18           Utah         25         22         43.32         -0 21           Missouri         26         157         43.26         -0 21           Wisconsin         27         124         42.19         -0 25           Delaware         28         10         41.95         -0 26           Nebraska         29         57         41         37         -0 28           Minnesota         30         105         40 95         -0 29           Michigan         31         181         37 38         -0.42           Virginia         32         90         37.16         -0 43           New Mexico         33	Arizona	16	22	50 51	0.05
Ohio         19         314         47 24         -0 07           Montana         20         25         46.50         -0 09           Iowa         21         113         45.73         -0 12           Indiana         22         144         44 46         -0 17           Kansas         23         83         44.13         -0 18           Maryland         23         72         44.13         -0 18           Utah         25         22         43.32         -0 21           Missouri         26         157         43.26         -0 21           Wisconsin         27         124         42.19         -0.25           Delaware         28         10         41.95         -0.26           Nebraska         29         57         41.37         -0.28           Minnesota         30         105         40.95         -0.29           Michigan         31         181         37.38         -0.42           Virginia         32         90         37.16         -0.43           New Mexico         33         14         33.07         -0.57           Texas         34         160 <td< td=""><td>Florida</td><td>17</td><td>72</td><td>49 04</td><td>0 00</td></td<>	Florida	17	72	49 04	0 00
Montana         20         25         46.50         -0.09           Iowa         21         113         45.73         -0.12           Indiana         22         144         44.46         -0.17           Kansas         23         83         44.13         -0.18           Maryland         23         72         44.13         -0.18           Utah         25         22         43.32         -0.21           Missouri         26         157         43.26         -0.21           Wisconsin         27         124         42.19         -0.25           Delaware         28         10         41.95         -0.26           Nebraska         29         57         41.37         -0.28           Michigan         31         181         37.38         -0.42           Virginia         32         90         37.16         -0.43           New Mexico         33         14         33.07         -0.57           Texas         34         160         27.47         -0.77           South Dakota         35         19         27.42         -0.77           Tennessee         36         71	Pennsylvania	18	463	48 07	-0 04
Iowa         21         113         45.73         -0 12           Indiana.         22         144         44 46         -0 17           Kansas.         23         83         44.13         -0 18           Maryland         23         72         44.13         -0 18           Missouri         26         157         43.26         -0 21           Missouri         26         157         43.26         -0 21           Wisconsin         27         124         42.19         -0.25           Delaware         28         10         41.95         -0 26           Nebraska         29         57         41 37         -0 28           Minnesota         30         105         40 95         -0 29           Michigan         31         181         37 38         -0.42           Virginia         32         90         37.16         -0 43           New Mexico         33         14         33.07         -0.57           Texas         34         160         27 47         -0.77           South Dakota         35         19         27 42         -0.77           Tennessee         36	Ohio	19	314	47 24	-0 07
Indiana       22       144       44 46       -0 17         Kansas       23       83       44.13       -0 18         Maryland       23       72       44.13       -0 18         Utah       25       22       43.32       -0 21         Missouri       26       157       43.26       -0 21         Wisconsin       27       124       42.19       -0.25         Delaware       28       10       41.95       -0.26         Nebraska       29       57       41.37       -0.28         Minnesota       30       105       40.95       -0.29         Michigan       31       181       37.38       -0.42         Virginia       32       90       37.16       -0.43         New Mexico       33       14       33.07       -0.57         Texas       34       160       27.47       -0.77         South Dakota       35       19       27.42       -0.77         Tennessee       36       71       27.13       -0.78         North Dakota       37       18       26.44       -0.81         Oklahoma       38       61       25.46	Montana	20	25	46.50	-0 09
Kansas.       23       83       44.13       -0 18         Maryland       23       72       44.13       -0 18         Utah       25       22       43.32       -0 21         Missouri       26       157       43.26       -0 21         Wisconsin.       27       124       42.19       -0.25         Delaware.       28       10       41.95       -0.26         Nebraska.       29       57       41.37       -0.28         Minnesota       30       105       40.95       -0.29         Michigan.       31       181       37.38       -0.42         Virginia.       32       90       37.16       -0.43         New Mexico.       33       14       33.07       -0.57         Texas.       34       160       27.47       -0.77         South Dakota.       35       19       27.42       -0.77         Tennessee.       36       71       27.13       -0.78         North Dakota.       37       18       26.44       -0.81         Oklahoma.       38       61       25.46       -0.84         West Virginia.       39       41		21	113	45.73	-o 12
Maryland       23       72       44.13       -0 18         Utah       25       22       43.32       -0 21         Missouri       26       157       43.26       -0 21         Wisconsin       27       124       42.19       -0.25         Delaware       28       10       41.95       -0.26         Nebraska       29       57       41.37       -0.28         Minnesota       30       105       40.95       -0.29         Michigan       31       181       37.38       -0.42         Virginia       32       90       37.16       -0.43         New Mexico       33       14       33.07       -0.57         Texas       34       160       27.47       -0.77         South Dakota       35       19       27.42       -0.77         Tennessee       36       71       27.13       -0.78         North Dakota       37       18       26.44       -0.81         Oklahoma       38       61       25.46       -0.84         West Virginia       39       41       23.71       -0.90         Arkansas       40       43       23.		22	144	44 46	-o 17
Utah         25         22         43.32         -0 21           Missouri         26         157         43.26         -0 21           Wisconsin.         27         124         42.19         -0.25           Delaware.         28         10         41.95         -0.26           Nebraska.         29         57         41.37         -0.28           Minesota         30         105         40.95         -0.29           Michigan.         31         181         37.38         -0.42           Virginia.         32         90         37.16         -0.43           New Mexico.         33         14         33.07         -0.57           Texas.         34         160         27.47         -0.77           South Dakota.         35         19         27.42         -0.77           Tennessee.         36         71         27.13         -0.78           North Dakota.         37         18         26.44         -0.81           Oklahoma.         38         61         25.46         -0.84           West Virginia.         39         41         23.71         -0.90           Arkansas.         40 </td <td></td> <td>23</td> <td>83</td> <td>44.13</td> <td>-о 18</td>		23	83	44.13	-о 18
Missouri       26       157       43.26       -0.21         Wisconsin.       27       124       42.19       -0.25         Delaware.       28       10       41.95       -0.26         Nebraska.       29       57       41.37       -0.28         Minnesota       30       105       40.95       -0.29         Michigan.       31       181       37.38       -0.42         Virginia.       32       90       37.16       -0.43         New Mexico.       33       14       33.07       -0.57         Texas.       34       160       27.47       -0.57         South Dakota.       35       19       27.42       -0.77         Tennessee.       36       71       27.13       -0.78         North Dakota.       37       18       26.44       -0.81         Oklahoma.       38       61       25.46       -0.84         West Virginia       39       41       23.71       -0.90         Arkansas.       40       43       23.19       -0.92         Wyoming.       41       5       22.17       -0.96         Kentucky.       42       57 <td></td> <td>23</td> <td>72</td> <td>44.13</td> <td>-o 18</td>		23	72	44.13	-o 18
Wisconsin.       27       124       42.19       -0.25         Delaware.       28       10       41.95       -0.26         Nebraska.       29       57       41 37       -0.28         Minnesota       30       105       40.95       -0.29         Michigan.       31       181       37.38       -0.42         Virginia.       32       90       37.16       -0.43         New Mexico.       33       14       33.07       -0.57         Texas.       34       160       27.47       -0.77         South Dakota.       35       19       27.42       -0.77         Tennessee.       36       71       27.13       -0.78         North Dakota.       37       18       26.44       -0.81         Oklahoma.       38       61       25.46       -0.84         West Virginia.       39       41       23.71       -0.90         Arkansas.       40       43       23.19       -0.92         Wyoming.       41       5       22.17       -0.96         Kentucky.       42       57       21.80       -0.97         North Carolina.       44 <t< td=""><td></td><td>•</td><td>1 1</td><td></td><td></td></t<>		•	1 1		
Delaware         28         10         41.95         -0.26           Nebraska         29         57         41.37         -0.28           Minnesota         30         105         40.95         -0.29           Michigan         31         181         37.38         -0.42           Virginia         32         90         37.16         -0.43           New Mexico         33         14         33.07         -0.57           Texas         34         160         27.47         -0.77           South Dakota         35         19         27.42         -0.77           Tennessee         36         71         27.13         -0.78           North Dakota         37         18         26.44         -0.81           Oklahoma         38         61         25.46         -0.84           West Virginia         39         41         23.71         -0.90           Arkansas         40         43         23.19         -0.92           Wyoming         41         5         22.17         -0.96           Kentucky         42         57         21.80         -0.97           North Carolina         43			1 - 1		
Nebraska         29         57         41         37         -0 28           Minnesota         30         105         40         95         -0 29           Michigan         31         181         37         38         -0.42           Virginia         32         90         37.16         -0 43           New Mexico         33         14         33.07         -0.57           Texas         34         160         27         47         -0.77           South Dakota         35         19         27         42         -0.77           Tennessee         36         71         27.13         -0.78           North Dakota         37         18         26         44         -0.81           Oklahoma         38         61         25.46         -0.84           West Virginia         39         41         23         71         -0.90           Arkansas         40         43         23         19         -0.92           Wyoming         41         5         22         17         -0.96           Kentucky         42         57         21.80         -0.97           North Carolina		•			-
Minnesota         30         105         40         95         -0         29           Michigan         31         181         37         38         -0.42         Virginia         32         90         37.16         -0         43           New Mexico         33         14         33.07         -0.57         -0.57         -0.57         -0.77         South Dakota         35         19         27         42         -0.77         Tennessee         36         71         27.13         -0.78         North Dakota         37         18         26         44         -0.81         Oklahoma         38         61         25.46         -0.84         West Virginia         39         41         23         71         -0.90         Arkansas         40         43         23         19         -0.92         Wyoming         41         5         22         17         -0.96         Kentucky         42         57         21.80         -0.97         North Carolina         43         66         20         82         -1.01         South Carolina         44         36         20         70         -1         01         Georgia         45         58         19.94         -1.04         Loui			1		
Michigan         31         181         37 38         -0.42           Virginia         32         90         37.16         -0 43           New Mexico         33         14         33.07         -0.57           Texas         34         160         27 47         -0.77           South Dakota         35         19         27 42         -0.77           Tennessee         36         71         27.13         -0.78           North Dakota         37         18         26 44         -0.81           Oklahoma         38         61         25.46         -0.84           West Virginia         39         41         23 71         -0.90           Arkansas         40         43         23 19         -0.92           Wyoming         41         5         22 17         -0.96           Kentucky         42         57         21.80         -0.97           North Carolina         43         66         20 82         -1.01           South Carolina         44         36         20 70         -1 oi           Georgia         45         58         19.94         -1.04           Louisiana         46		-	, ,	1	•
Virginia         32         90         37.16         -0 43           New Mexico         33         14         33.07         -0.57           Texas         34         160         27 47         -0.77           South Dakota         35         19         27 42         -0.77           Tennessee         36         71         27.13         -0.78           North Dakota         37         18         26 44         -0.81           Oklahoma         38         61         25.46         -0.84           West Virginia         39         41         23.71         -0.90           Arkansas         40         43         23.19         -0.92           Wyoming         41         5         22.17         -0.96           Kentucky         42         57         21.80         -0.97           North Carolina         43         66         20.82         -1.01           South Carolina         44         36         20.70         -1 o1           Georgia         45         58         19.94         -1.04           Louisiana         46         36         17.13         -1.14           Alabama         47		•			-
New Mexico.       33       14       33.07       -0.57         Texas       34       160       27 47       -0.77         South Dakota.       35       19       27 42       -0.77         Tennessee.       36       71       27.13       -0.78         North Dakota.       37       18       26 44       -0.81         Oklahoma       38       61       25.46       -0.84         West Virginia       39       41       23 71       -0.90         Arkansas.       40       43       23 19       -0.92         Wyoming       41       5       22 17       -0.96         Kentucky       42       57       21.80       -0.97         North Carolina       43       66       20 82       -1.01         South Carolina       44       36       20 70       -1 o1         Georgia       45       58       19.94       -1.04         Louisiana       46       36       17 13       -1.14         Alabama       47       34       12.85       -1 29	Virginia	•	i i		•
Texas.         34         160         27 47         -0.77           South Dakota.         35         19         27 42         -0.77           Tennessee.         36         71         27.13         -0.78           North Dakota.         37         18         26 44         -0.81           Oklahoma         38         61         25.46         -0.84           West Virginia         39         41         23 71         -0 90           Arkansas.         40         43         23 19         -0.92           Wyoming         41         5         22 17         -0.96           Kentucky         42         57         21.80         -0.97           North Carolina         43         66         20 82         -1.01           South Carolina         44         36         20 70         -1 01           Georgia         45         58         19.94         -1.04           Louisiana         46         36         17 13         -1.14           Alabama         47         34         12.85         -1 29	New Mexico	-			
South Dakota         35         19         27 42         -0.77           Tennessee         36         71         27.13         -0.78           North Dakota         37         18         26 44         -0.81           Oklahoma         38         61         25.46         -0.84           West Virginia         39         41         23 71         -0 90           Arkansas         40         43         23 19         -0.92           Wyoming         41         5         22 17         -0.96           Kentucky         42         57         21.80         -0.97           North Carolina         43         66         20 82         -1.01           South Carolina         44         36         20 70         -1 01           Georgia         45         58         19.94         -1.04           Louisiana         46         36         17 13         -1.14           Alabama         47         34         12.85         -1 29	Tevas				
Tennessee.       36       71       27.13       -0.78         North Dakota.       37       18       26 44       -0.81         Oklahoma.       38       61       25.46       -0.84         West Virginia.       39       41       23.71       -0.90         Arkansas.       40       43       23.19       -0.92         Wyoming.       41       5       22.17       -0.96         Kentucky.       42       57       21.80       -0.97         North Carolina.       43       66       20.82       -1.01         South Carolina.       44       36       20.70       -1.01         Georgia.       45       58       19.94       -1.04         Louisiana.       46       36       17.13       -1.14         Alabama.       47       34       12.85       -1.29			1 1		
North Dakota         37         18         26 44         -0.81           Oklahoma         38         61         25.46         -0.84           West Virginia         39         41         23.71         -0.90           Arkansas         40         43         23.19         -0.92           Wyoming         41         5         22.17         -0.96           Kentucky         42         57         21.80         -0.97           North Carolina         43         66         20.82         -1.01           South Carolina         44         36         20.70         -1.01           Georgia         45         58         19.94         -1.04           Louisiana         46         36         17.13         -1.14           Alabama         47         34         12.85         -1.29				, , ,	
Oklahoma       38       61       25.46       -0.84         West Virginia       39       41       23 71       -0 90         Arkansas       40       43       23 19       -0.92         Wyoming       41       5       22 17       -0.96         Kentucky       42       57       21.80       -0.97         North Carolina       43       66       20 82       -1.01         South Carolina       44       36       20 70       -1 01         Georgia       45       58       19.94       -1.04         Louisiana       46       36       17 13       -1.14         Alabama       47       34       12.85       -1 29	North Dakota	•		: - 1	
West Virginia       39       41       23 71       -0 90         Arkansas       40       43       23 19       -0.92         Wyoming       41       5       22 17       -0.96         Kentucky       42       57       21.80       -0.97         North Carolina       43       66       20 82       -1.01         South Carolina       44       36       20 70       -1 01         Georgia       45       58       19.94       -1.04         Louisiana       46       36       17 13       -1.14         Alabama       47       34       12.85       -1 29			) )		
Arkansas       40       43       23       19       -0.92         Wyoming       41       5       22       17       -0.96         Kentucky       42       57       21.80       -0.97         North Carolina       43       66       20       82       -1.01         South Carolina       44       36       20       70       -1       01         Georgia       45       58       19.94       -1.04       -1.04         Louisiana       46       36       17       13       -1.14         Alabama       47       34       12.85       -1       29		•	1	,	
Wyoming     4I     5     22 17     -0.96       Kentucky     42     57     21.80     -0.97       North Carolina     43     66     20 82     -1.01       South Carolina     44     36     20 70     -1 01       Georgia     45     58     19.94     -1.04       Louisiana     46     36     17 13     -1.14       Alabama     47     34     12.85     -1 29	Arkansas				-
Kentucky     42     57     21.80     -0.97       North Carolina     43     66     20.82     -1.01       South Carolina     44     36     20.70     -1.01       Georgia     45     58     19.94     -1.04       Louisiana     46     36     17.13     -1.14       Alabama     47     34     12.85     -1.29	Wyoming	•		1	
North Carolina     43     66     20 82     -1.01       South Carolina     44     36     20 70     -1 01       Georgia     45     58     19.94     -1.04       Louisiana     46     36     17 13     -1.14       Alabama     47     34     12.85     -1 29	Kentucky				
South Carolina      44     36     20 70     —I 0I       Georgia      45     58     19.94     —I.04       Louisiana      46     36     17 13     —I.14       Alabama      47     34     12.85     —I 29	37 1 6 1			,	
Georgia     45     58     19.94     -1.04       Louisiana     46     36     17 13     -1.14       Alabama     47     34     12.85     -1 29				i	
Louisiana 46 36 17 13 -1.14 Alabama 47 34 12.85 -1 29					
Alabama			- 1	1	•
				- 1	

<sup>\*</sup> Source: Computed from American Booktrade Directory, 1935 (N.Y.: R.R. Bowker Co., 1935).

Mean per 1,000,000 population (based on means of the 48 states), 49.12, standard deviation, 28.08;
U.S. total, 6,000, U.S. bookstores per 1,000,000 population (including District of Columbia), 48.87.

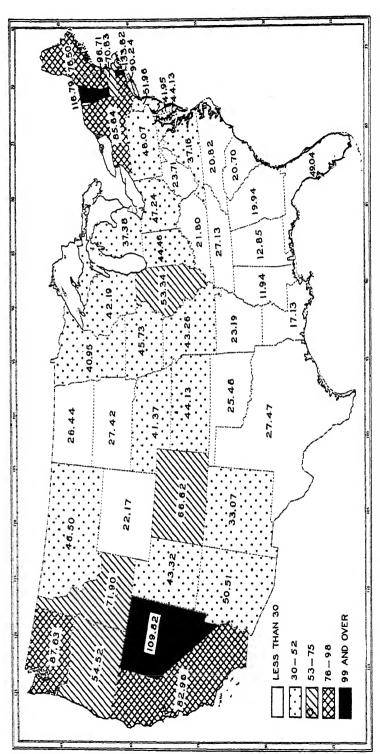


Fig. 55.—Gross number of bookstores per 1,000,000 population, 1935. Source: Same as for Table 56. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

The distribution of bookstores, by states, is shown in Table 56 and Figures 55 and 56.

The gross number of bookstores, including juvenile departments and rental libraries, per 1,000,000 population in each state, describes their relative accessibility in a general way. In this respect, a tremendous difference exists between the Northeast and the Far West, and the Southeast and the Southwest. On this basis, Rhode Island, the top-ranking state, has one bookstore to each 7,462 people. Mississippi, on the same basis, has one to each 84,035. A comparison of Figure 55 with the library index (Fig. 50) suggests that the states which are represented

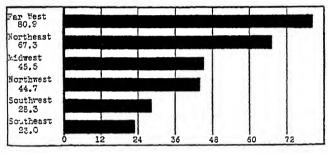


Fig. 56.—Regional summary of gross number of bookstores per 1,000,000 population, 1935.

with good library service are better supplied with bookstores than those in which library facilities are relatively poorly developed. A few states stand higher in library service than in number of bookstores. Massachusetts is 2.31 units of standard deviation above the average for the forty-eight states in library service and 0.77 above in number of bookstores. New Jersey is 0.96 units above in the former and 0.10 in the latter. Ohio stands 0.98 units above in the former and 0.07 below in the latter. Wyoming ranks 1.11, and 0.96 below, respectively. A few rank higher in number of bookstores than in library service. Idaho, for example, is 0.64 below in library service and 0.81 above in number of bookstores.

The table and figures to which reference has been made relate to total population. Consequently, they do not distinguish

TABLE 57\*
Per Cent of Population with Listed Book Outlets

			-
State	Rank	Per Cent	Standard Score
Connecticut	I	100 0	1.50
Delaware	I	100 0	I 50
Massachusetts	3	99 9	I 49
New Jersey	4	99 I	1 46
New York	5	98 9	I 45
Vermont	5	98 9	I 45
New Hampshire	7	96 9	I 36
Pennsylvania	8	96 7	I 36
Ohio	9	91 2	I 12
Maine	10	1 -	1 08
n,	11	90 3	
Rhode Island California		88 9	I 02
Michigan	12	88 6	1 01
	13	87 7	0 97
Illinois	14	86 8	0 93
Washington	15	85 8	0.89
Oregon	16	77 6	0 54
Wisconsin	17	76.2	0 48
Maryland.	18	71.0	0 26
Indiana	19	69 9	0 21
Florida	20	68 8	0.17
Arizona	21	68.5	0 15
Utah	22	67.1	0 09
Minnesota	23	67.0	0.00
Kansas	24	66.2	0 06
Iowa	25	63.8	-0 05
Colorado	26	62.6	-0 10
Missouri	27	62.0	-0 12
Nebraska	28	55.6	-0 40
West Virginia	29	54.9	-o 43
Texas	30	54.I	-0 46
South Carolina	31	54.0	-0 46
Montana	32	52 5	-0 53
Arkansas	33	51.3	-0 58
Virginia	34	51.2	
Tennessee	35	46.3	-o 58
North Carolina	35 36	46.2	-o 79
Idaho	•		-0 80
Louisiana	37	42.4	-o 96
Oklahoma	38	4I.4	-1.∞
Wyoming	39	40.6	-1.04
41'1	40	40.3	-1.05
Alabama	4I	39.8	-1.07
Kentucky	42	38.7	-1.12
Georgia	43	34.8	-I 28
New Mexico.	44	34 - 4	-I 30
AT 1	45	30.9	-I 45
	46	29.8	-1.50
South Dakota	47	24.5	-1.72
Mississippi	48	22.6	-1.81
1			

<sup>\*</sup> Source: O. H. Cheney, Economic Survey of the Book Industry, 1930-1931 (N.Y.: Natl. Assoc. Book Publs., 1931), p. 244.

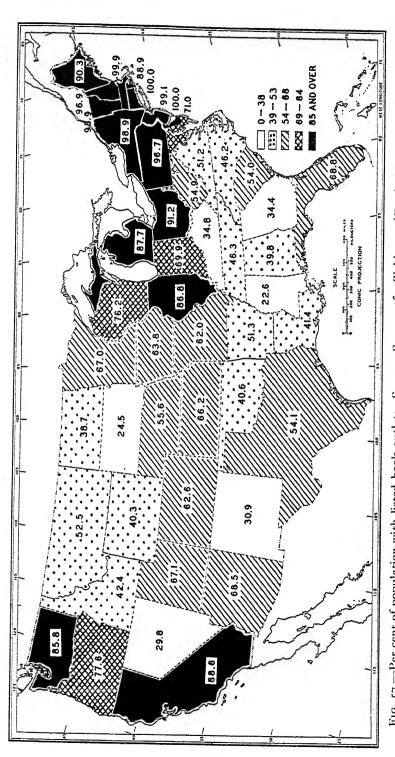


FIG. 57.—Per cent of population with listed book outlets. Source: Same as for Table 57. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

between rural and urban sections, except where states are predominantly rural or urban. Such a distinction must be made. In actuality, a very great difference exists between the number of bookstores in rural areas and urban centers. The bookstore, like the library, is an urban institution. No city with 100,000 population is without book outlets, whereas Mr. Cheney found that 51.3 per cent of the rural population live in counties without bookstores. Furthermore, the service rendered by the bookstore in a large city is more complete than that given by the bookstore in most small towns. The Far West has more

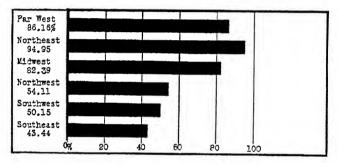


Fig. 58.—Regional summary of per cent of population with listed book outlets

book outlets per 1,000,000 population than the Northeast. This means that in the Northeast a greater per cent of people live in large cities where fewer bookstores serve more people than in the Far West. In terms of per cent the Northeast appears somewhat better than in terms of total number of bookstores available. Table 57 and Figures 57 and 58 show the per cent of the population with listed book outlets. The same areas that are without libraries are, in reality, similarly without bookstores. The difficulty of securing a book, either from a public library, or a bookstore, is far greater in Mississippi, for example, where 69 per cent of the population live in areas without libraries and 77.4 per cent in areas without bookstores, than it is in Massachusetts, where public libraries are available to the entire population and bookstores are accessible to all but one-tenth of one per cent of the population.

<sup>10</sup> Cheney, op. cit., p. 238.

TABLE 58\*
INDEX OF BOOK SALES

State	Rank	Index	Standard Score
New York	I	2.85	4 37
California	2	2.04	2 69
Connecticut	3	I 70	I 99
Massachusetts	ა 4	1.60	1 78
New Jersey		1.11	0 77
New Hampshire.	5 6	I 10	0 75
Vermont	7	1.06	0.66
Delaware	8	1.05	0 64
Maine	9	1.02	0 58
Illinois	10	1.01	0 56
Rhode Island	II	0.95	0.43
Arizona	12	0.91	0.35
Pennsylvania	13	0.88	0 29
Nevada	13	0.88	0 29
Michigan	15	0.86	0.25
Colorado	16	0 84	0 21
Wisconsin	17	0.78	0.08
Washington	18	0.75	0.02
Ohio	19	0.73	-0.02
Montana	19	0.73	-0.02
Maryland	21	0.71	-0 06
Minnesota	22	0 70	-0.08
Florida	23	0 69	-0.10
Indiana	24	0 65	-0.19
Oregon	25	0 64	-0.21
Wyoming	26	0 63	-0.23
Nebraska	27	0.59	-0.31
Iowa	28	0 58	-0.33
Missouri	29	0.56	-o 37
Kansas	30	0 54	-0 4I
Virginia	31	0.53	-0.43
Utah	32	0 52	-0.46
New Mexico	32	0 52	-0.46
South Dakota	34	0 49	-0.52
North Dakota	35	0 44	-0.62
West Virginia	35	0 44	-0.62
Georgia	37	0.37	-0.77
Idaho	38	0 35	-0.81
Texas	39	0.34	-o 83
Tennessee	40	o 33	-0.85
North Carolina	4I	0.31	-0.89
Kentucky	42	0 28	-0.95
Arkansas	43	0.27	-0.97
South Carolina	44	0 25	-1.01
Louisiana	44	0.25	-1.01
Alabama	46	0.24	-I 04
Oklahoma	47	0.23	-I 06
Mississippi	48	0.15	-1.22
	1 1	1	

<sup>\*</sup> Source: Cheney, op. cit, p. 63.

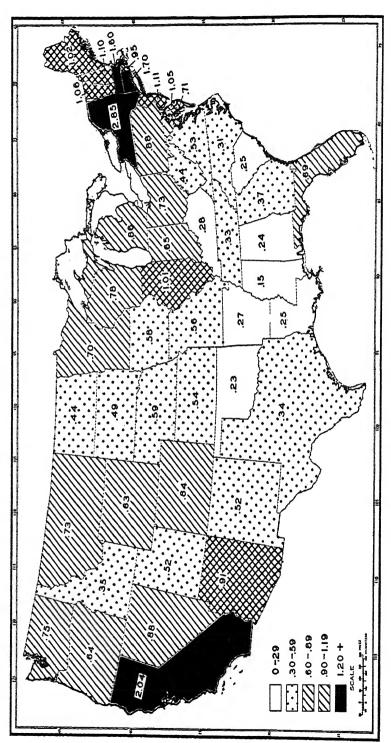


Fig. 59.—Index of book sales. Source: Same as for Table 58. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

So far in the discussion, all bookstores have been considered on even terms. That is, every bookstore has been counted as one unit, regardless of its size. This implies a fallacy which is immediately apparent. A bookstore in New York City may sell a hundred times as many books as one in Nebraska and still receive the same weight. Therefore, a measure of the actual sales must be considered. Table 58 and Figures 59 and 60 deal with this situation. The table is in the form of a carefully computed index which shows that sales of books are high in the Northeast and Far West and are relatively low in the other re-



Fig. 60.—Regional summary of index of book sales

gions, especially in the Southeast and Southwest. The same regional inequality is shown to exist when the gross number of bookstores is considered. Thus, the Far West and Northeast have more bookstores and sell more books than do the other regions.

#### DISTRIBUTION OF RENTAL LIBRARIES

The preceding discussion includes all types of bookstores, general, juvenile, and the rental library—if this book-distributing agency may be considered a bookstore. The rental library is a comparative newcomer, but it has assumed considerable importance, particularly as a distributor of recent fictionoften of the lightest character. Because in public libraries the circulation of fiction—usually of a much more substantial type has frequently constituted one of the major items of the total circulation, the question may well be asked whether the rental

TABLE 59\*
RENTAL LIBRARIES PER 1,000,000 POPULATION, 1935

				<del></del>
	_	Rental	Standard	
STATE	RANK	Total	Per 1,000,000 Population	Score
Rhode Island	ı	51	74.18	4.28
Vermont.	2	17	47.27	2.22
Connecticut	3	70	43 56	1.94
California	-	218	38 40	1.54
^	4	1	32 50	1.09
	5 6	31		1.09
New Hampshire	1	15	32 24	0 89
Idaho	7 8	31	29 93	0 83
	-	13	29 2I 28.78	0 81
Washington	9	45	28 61	
Florida.	1	42	}	0.78
Massachusetts	II	105	24 71	0 49
Kansas	12	46	24.46	0 48
Montana	13	13	24.18	0.45
New York	14	281	22 32	0.31
Maine	15	17	21.32	0.24
Utah	16	10	19.69	0.11
Illinois	17	150	19.66	0.11
New Jersey	18	74	18.31	0.∞
Delaware	19	4	16.78	-0.11
Indiana	20	51	15.75	-0.19
Ohio	21	104	15.65	-0.20
Wisconsin	21	46	15.65	-0.20
Pennsylvania.	23	143	14.85	-o 26
New Mexico	24	6	14.17	-o 31
Iowa	25	35	14.16	-0 31
Arizona	26	6	13.77	-0.34
Wyoming	27	3	13.30	<b>—</b> о 38
Michigan	28	62	12.80	-0.42
Nebraska	29	17	12 34	-0 45
Minnesota	30	31	12.09	<b>-0 4</b> 7
Missouri	31	42	11.57	-o 51
Virginia	32	28	11.56	-0.51
Nevada	33	I	10 98	-o.56
Oklahoma	34	23	9 60	-0.66
Arkansas	35	17	9 17	-0.70
North Dakota	36	6	8 81	-0.72
South Dakota	37	6	8.66	-o 73
Texas	38	50	8.58	-0.74
Georgia	39	24	8.25	-0.77
Kentucky	40	21	8.03	-o 78
Maryland	41	13	7.97	-0.79
North Carolina	42	24	7.57	-0.82
West Virginia	43	13	7.52	-0.82
Alabama	44	17	6 42	-0 91
Mississippi	45	12	5 97	-0 94
Louisiana	46	12	5.71	-o 96
Tennessee	47	13	4 97	-1.02
South Carolina	48	7	4.03	-1 09
	<u>'</u>	<b>'</b>	713	- +3

\*Source. Compiled from American Booktrade Directory, 1935.

Mean per 1,000,000 population (based on means of the 48 states), 18.25; standard deviation, 13.06;
U.S. total, 2,087; U.S. rental libraries per 1,000,000 population (including District of Columbia), 16 94.

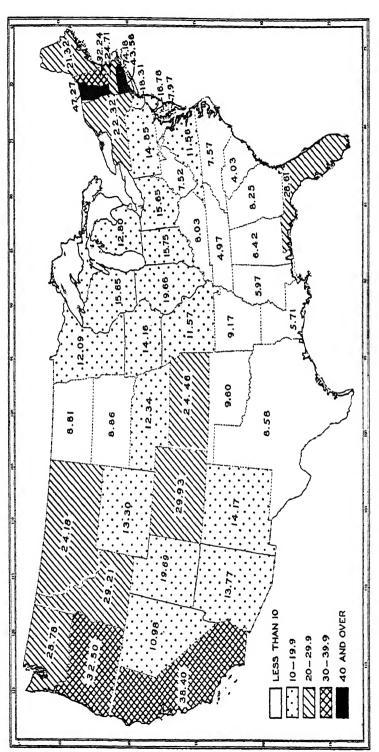


Fig. 61.—Rental libraries per 1,000,000 population, 1935. Source: Same as for Table 59. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

library has sprung up to take the place of the public library where the latter has been lacking. The answer to this question is negative and may be found in the data of Table 59.

Figures 61 and 62, as well as Table 59, indicate clearly that rental libraries exist in relative abundance where public library service is best; and that they do not exist in large numbers, relatively, where library service is poorest, although the regional inequalities in the distribution of rental libraries seem to be less in the Northeast, Northwest, and Midwest than those in the distribution of library service in the same regions. Thus the differences in terms of rental libraries between the Northeast, Mid-

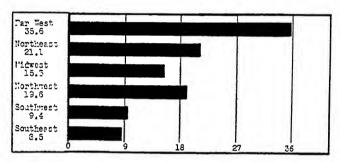


Fig. 62.—Regional summary of rental libraries per 1,000,000 population, 1935

west, and Northwest are comparatively insignificant, whereas in terms of library service the differences are definitely significant. A few states stand higher in library service than in number of rental libraries. Massachusetts ranks 2.31 units of standard deviation above the average for the forty-eight states in the former, and 0.49 above in the latter; New Jersey stands 0.96 above in the former, and exactly at the mean in the latter; Ohio is 0.98 above, and 0.20 below, respectively. Twenty-five states rank higher in number of rental libraries than in library service. Florida, for example, ranks -0.82 in public library service, but +0.78 in rental libraries. Idaho similarly stands at -0.64 in the former, and at +0.83 in the latter.

On the basis of these data, it would seem that rental libraries have been developed, not so much to substitute for the lack of libraries, as to make available certain types of books at con-

venient places and under conditions which appeal to certain population groups. It appears that large numbers of rental libraries are co-existent with good library service; that regions which have relatively poor library service also have relatively few rental libraries. In the development of both services urbanization plays an important role. The fact that chain rental libraries were just beginning to be organized in the early 1930's may account for an apparent increase in number of outlets rather than an increase in volume of business at the moment when public libraries were being confronted with the greatest demand for books and with the greatest reduction in book budgets. Whatever the causes may have been which have brought the rental library into being, its existence seems to afford the public library an opportunity to reconsider its own educational and recreational functions and to make a more satisfactory differentiation between them.

## DISTRIBUTION OF JUVENILE BOOKSTORES

The development of work with children in American public libraries has been one of the library's most distinctive achievements. It can hardly be conceived, therefore, that the juvenile bookstore or department can be a competitor of the children's service in the public library. On the contrary, it is frequently true that the presence of good library service for children stimulates the purchasing of children's books of high quality and thus makes possible the maintenance of excellent juvenile book departments in bookstores. The Stevenson Room in the Cleveland Public Library and the recently established Mother's Room of the Youngstown (Ohio) Public Library are both notable for their service in aiding parents in the selection of books which they wish to purchase for their own home bookshelves.

<sup>11</sup> Douglas Waples, People and Print: Social Aspects of Reading in the Depression (Chicago: University of Chicago Press, 1937), chap. iv, Fig. 2, shows that the number of rental libraries has increased steadily since 1930. He doubts if there has been an appreciable increase in volume; but points out the fact that there is little information available concerning the extent of service, since the owners have not kept records which supply information of this character.

TABLE 60\*

JUVENILE BOOKSTORES AND DEPARTMENTS PER 1,000,000

POPULATION 5-17 YEARS OF AGE, 1935

1				
		JUVENILE BO DEPAR	STANDARD	
State	RANK	Total	Per 1,000,000 Population 5-17 Years	Score
Vermont	I	18	50 05	3.69
New Hampshire	2	18	38 69	2.43
Nevada	3	3	32 95	1.79
Colorado	4	34	32 83	1.78
Kansas		54	28 71	1.32
Connecticut	5 6	43	26 76	1.10
Rhode Island	7	17	24.73	0 88
Idaho	8	11	24 72	0 87
California .	9	131	23 07	0 69
Massachusetts	10	97	22 83	0.66
Washington	11	35	22 39	0.62
Florida	12	31	21 11	0.47
New York	13	253	20 10	0 36
Utah	14	10	19 69	0.32
Oregon.	15	18	18 87	0.23
Maine	16	15	18.81	0.23
Montana	17	10	18.60	0 20
Arizona	18	8	18 37	0.17
New Jersey	19	74	18.31	0.17
Wyoming	20	4	17.73	0 10
Illinois	21	134	17.56	0 08
Wisconsin	22	49	16.67	-0 02
Iowa	23	4I	16.59	-0 03
Indiana	24	53	16.37	-0 os
Michigan	25	72	14.87	-0 22
Pennsylvania	26	138	14 33	-o 28
Ohio	27	92	13 84	-o 33
Nebraska	28	19	13.79	-0 34
Missouri	29	48	12 67	-0 46
Minnesota	30	32	12.48	-0 48
New Mexico	31	5	11.81	-o <u>5</u> 6
North Dakota	32	8	11 75	-o 57
South Dakota	33	8	11.55	-o 59
Oklahoma	34	26	10.85	-o.66
Arkansas	35	20	10.78	-o 67
Virginia	36	25	10 32	-o 72
West Virginia	37	17	9 83	-0.78
Georgia	38	27	9 28	-o 8 <sub>4</sub>
Texas	39	54	9.27	-o 8 <sub>4</sub>
Delaware	40	2	8 39	-0.94
North Carolina	4I	26	8.20	-0 96
South Carolina	42	14	8.05	-0.98
Maryland	43	13	7 97	-o 98
Kentucky	44	20	7.65	-1 02
Tennessee	45	18	6 88	-1 11
Louisiana	. 46	13	6.19	-1 18
Alabama	47	15	5 67	-1 24
Mississippi	48	11	5-47	-1 26
* C				

\* Source Computed from American Booktrade Directory, 1935.

Mean per 1,000,000 population 5-17 years of age (based on means of the 48 states), 16 84; standard deviation, 9.00; U.S. total, 1,899, U.S. juvenile bookstores and departments per 1,000,000 population 5-17 years of age (including District of Columbia), 15-47.

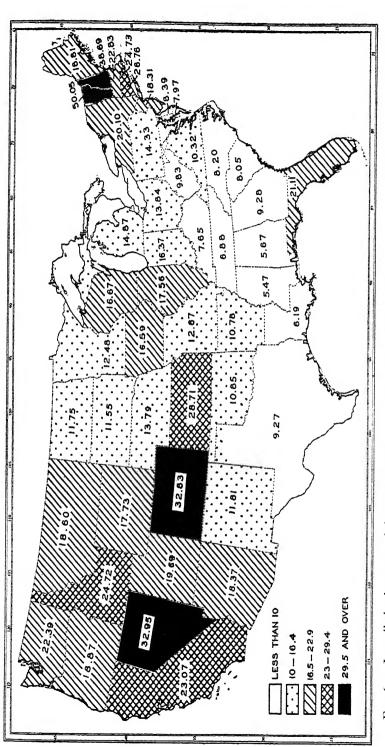


Fig. 63.—Juvenile bookstores and departments per 1,000,000 population 5-17 years of age, 1935. Source: Same as for Table 60. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

The availability of juvenile bookstores is shown for each state and region in Table 60 and Figures 63 and 64. With the exception of the Northwest, juvenile bookstores seem to be distributed in a pattern quite similar to that of the gross number of bookstores. This is what might be expected, since most large bookstores would be likely to have juvenile departments. The library index for 1934 does not specifically measure the service of children's departments, and consequently this cannot be directly compared with these data. However, it seems reasonable to assume that libraries offering good general service would offer

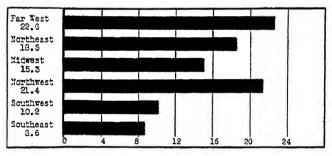


Fig. 64.—Regional summary of juvenile bookstores and departments per 1,000,000 population 5-17 years of age, 1935.

in their children's departments approximately the same quality of service. If that assumption is reasonably justified, then it is possible to say that, with the exception of the Northwest, juvenile book departments exist in greatest numbers where library service is best developed; and that in regions where library service is poorly developed, juvenile book departments are relatively scarce, and children's books are of a relatively poorer order—as the Wilson and Wight survey found in Southern counties without public library service. Vermont has the largest number of juvenile bookstores per capita, and Mississippi the fewest. The range is from 50 (with one store to 20,000 population) to 5.5 (one to 181,818), per 1,000,000 population.

<sup>&</sup>lt;sup>12</sup> L. R. Wilson and E. A. Wight, *County Library Service in the South* (Chicago: University of Chicago Press, 1935), p. 116.

TABLE 61\* BOOK-OF-THE-MONTH CLUB AND LITERARY GUILD SUBSCRIPTIONS PER 1,000,000 POPULATION, 1933-34

			·	
		Subscr	C	
State	Rank	Total	Per 1,000,000 Population	Standard Score
Nevada	I	311	3,415	3 88
Delaware	2	593	2,488	2 24
Wyoming .	3	488	2,163	1 67
Vermont	4	691	1,922	1 24
Massachusetts	5	7,898	1,859	1 13
New Jersey	6	7,403	1,832	1 09
Arizona	7	794	1,823	1 07
California	8	10,102	1,779	0 99
New York	9	20,929	1,663	0 79
Michigan	10	7,621	1,574	0 63
Montana	11	837	1,557	0 60
Connecticut	12	2,468	1,536	0 56
New Hampshire	13	706	1,517	0 53
Ohio	14	9,279	1,396	0 32
Utah	15	67I	1,321	0.19
Colorado	16	1,362	1,315	0 17
Pennsylvania	17	12,602	1,308	0.16
Maine	18	1,026	1,287	0.13
Idaho	19	561	1,268	0 08
Illinois	20	9,588	1,257	0 07
Maryland	21	1,974	1,210	-0.01
Minnesota	22	3,003	1,171	-0.08
3	23	4,127	1,137	-0.14
Missouri	24	2,772	1,122	-0 17
Rhode Island	25	770	1,120	-0.17
Virginia	26	2,624	1,083	-0 23
^ 0	27	1,019	1,068	-0 26
Wisconsin	28	3,066	1,043	-0 31
New Mexico	29	440	1,039	-0 31
North Dakota	30	700	1,028	-0 33
Florida	31	1,497	1,020	-0.35
South Dakota	32	706	1,019	-0 35
Washington	33	1,559	997	-0.39
Texas	33 34	5,671	974	-0.43
Indiana	35	3,139	969	-0.44
	35 36	1,180	856	-0.63
	-	1,576	838	-0.67
Kansas	37 38	1,445	836	-0 67
West Virginia		2,534	799	-0.74
North Carolina	39 40	2,007	768	-0.79
Kentucky Oklahoma	40 41	1,538	642	-1 01
Oklahoma	42	1,046	602	-1 08
	43	1,582	544	-1 18
Georgia		1,000	539	-1.19
Arkansas	44	1,400	529	-I 2I
Alabama	45 46	1,091	519	-1.23
	•	1,146	438	~1.37
Tennessee	47 48	409	204	-1.78
Mississippi	40	4-3		,
		:	1	

<sup>\*</sup>Source: Adapted from data supplied by correspondence with the Book-of-the-Month Club and the Literary Guild.

Mean per 1,000,000 population (based on means of the 48 states), 1,216; standard deviation, 567-1; U.S. total, 146,951; U.S. subscriptions for Book-of-the-Month Club and Literary Guild per 1,000,000 population (including District of Columbia), 1,202.

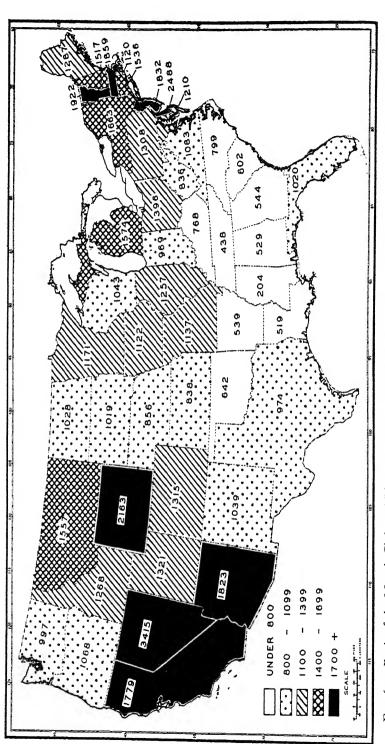


Fig. 65.—Book-of-the-Month Club and Literary Guild subscriptions per 1,000,000 population, 1933-34. Source: Same as for Table 61. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

#### DISTRIBUTION OF BOOK CLUB MEMBERS

The pattern of the distribution of the Book-of-the-Month Club and Literary Guild subscribers is portraved in Table 61 and Figures 65 and 66. The high rank of the Far West and Northeast and the low position occupied by the Southeast and Southwest indicate that these publications are most widely distributed in states which have the best library facilities, and least so in states with the poorest library service. Some exceptions occur. Arizona stands 0.50 units of standard deviation below the mean in library service, and 1.07 above in subscribers of

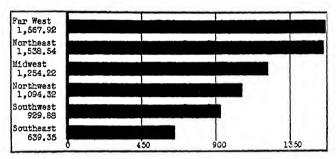


Fig. 66.—Regional summary of Book-of-the-Month Club and Literary Guild subscriptions per 1,000,000 population, 1933-34.

this type. Nevada stands 0.63 above in library service, and 3.88 above in subscribers. Although Nevada had only 311 actual subscriptions in its total population (91,058), it is the highest ranking state when this number is adjusted to population. In thinking of Nevada, in particular, it is well to remember that approximately 95 per cent of its total land area is largely unoccupied, and that it ranks ninth according to the economic index used in chapter xiv.

#### DISTRIBUTION OF SUBSCRIPTION BOOKS

One of the largest items in the nation's annual book bill is that which goes for books sold on subscription. In 1933, although that was one of the deepest depression years for the publisher, out of a total bill of \$109,000,000 for all books of all classes, the value of books distributed in this way was \$26,000,-

TABLE 62\*

Per Cent of Sales of Four Encyclopedias Sold by Subscription in Each State per 1,000,000

Population, 1934

State	Rank	Per Cent of Sales	Standard Score
Kansas	I	8 91	3 71
Nevada	2	6 81	2 32
T1 · 1		1	
	3	5 - 59	1 51
Colorado	4	5 56	I.49
Delaware	5 6	5 4I	I 39
South Dakota		5.11	1 20
Rhode Island	7	4 58	0 85
Arizona	8	4 39	0.72
Illinois	9	4.37	0 67
Oklahoma	10	4.16	0 57
Wisconsin	11	4 13	0 55
Missouri	12	4 06	0 50
Utah	12	4 06	o 50
Texas	14	3.97	0 44
New York	15	3.89	0 39
Connecticut	16	3.76	0 30
North Carolina	17	3.74	0 29
California	18	3 64	0.22
Montana	19	3 - 57	0 18
Arkansas	20	3 51	0 14
Nebraska	21	3.36	0 04
North Dakota	21	3 36	0 04
Iowa	23	3.27	-0 02
Virginia	24	3.20	-0 07
Minnesota	25	3.12	-0 12
New Mexico	26	3.∞	-0.20
Michigan	27	2 93	-0 24
Pennsylvania	28	2 83	-o 3ī
Maryland	29	2.81	-0 32
Washington	29	2.81	-0 32
Wyoming	31	2 79	-0 34
Louisiana	32	2 73	-o 38
Georgia	33	2.51	-0 52
Idaho	34	2.40	-0.59
Ohio	35	2 24	-0.70
New Jersey	36	2.21	-0 72
Indiana	37	2.20	-o 73
Massachusetts	38	2.15	-0 76
Tennessee	39	I 99	-0 87
South Carolina	40	I 93	-0 90
Alabama	4I	1.78	_I ∞
Kentucky.	42	1.59	-1 13
West Virginia	43	1.58	-1 14
Mississippi	44	1.43	-I 24
Oregon	45	I 40	-1 25
Maine.	46	1.20	-1.39
New Hampshire	46	1.20	
Vermont	48	I 14	-I 39
	40	1 14	-I 43
			LI

<sup>\*</sup> Source: Adapted from correspondence with representatives of the publishers of Compton's Pictural Encyclopedia, The World Book Encyclopedia, Book of Knowledge, and the Encyclopedia Britannica.

Mean per cent, 3.30, standard deviation, 1.514.

000. Data concerning the distribution, by states, of books sold by subscription are not available, but four companies selling encyclopedias by subscription (Compton's Pictured Encyclopedia, The World Book Encyclopedia, the Book of Knowledge, and the Encyclopaedia Britannica) have furnished figures showing the per cent of their sales made in each state. These per cents were averaged and adjusted to the population of the respective states. Since the total amount of sales of each company was unknown, the data may not be entirely comparable, and hence should be interpreted accordingly.

To establish a relation between the existence of libraries and the sale of these publications is obviously difficult. Communities with good library facilities may be better markets than those with poor library facilities; or, again, they may be poorer markets. If the latter is true, then the relative high standing of the Northwest, Southwest, and Southeast in the sale of these publications would seem logical. That is, people in these regions might be inclined to buy more encyclopedias because they do not have libraries of which they may make use. However, officials in the companies have expressed the opinion that their sales in any given state seem to depend more upon the efforts exerted by the individual company than upon any other factor. Table 62 and Figures 67 and 68 are offered for whatever aid they may give in arriving at a satisfactory interpretation.

Three further aspects of the book industry may be mentioned in concluding this chapter. These are: (1) the number of population essential to support a bookstore; (2) the lack of books that may be sold at a price sufficiently low to bring them within the range of potential purchasers; and (3) the failure of publishers to develop books which may be read by that part of the population whose facility in reading is limited to the grade school level.

In the discussion of the support of libraries it was pointed out that different writers have set up certain minimum requirements as essential to the provision of adequate library service. Counties without an assessed valuation of \$10,000,000, and with less

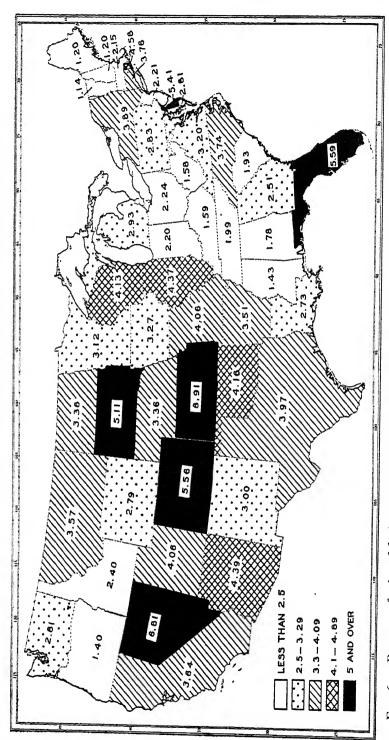


Fig. 67,—Per cent of sales of four encyclopedias sold by subscription in each state per 1,000,000 population, 1934. Source: Same as for Table 62. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

than 20,000 population, find the support of county libraries difficult. Mr. Duffus, in commenting on the size of the community necessary to support a bookstore, says:

.... according to the National Association of Book Publishers, a town of 20,000 population will support a book business of \$30,000, which with good management will yield a salary of \$3,000 for the proprietor, plus a net profit of 5 per cent. This means, of course, that few towns of less than 20,000 can have a real bookstore, as bookstores are at present conducted, and that even in towns considerably larger than this the bookseller cannot count on more than a modest living.13

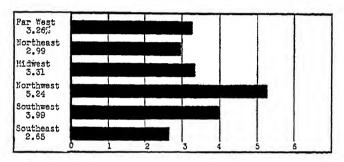


Fig. 68.—Regional summary of per cent of sales of four encyclopedias sold by subscription in each state per 1,000,000 population, 1934.

The probable accuracy of this point of view is supported by the fact reported by Mr. Cheney, that 32,415,588 people in the United States, largely in rural or small city areas, were without bookstores in 1930-31.14 The concentration of population in these areas was too slight to make the operation of bookstores profitable.

Until about 1930, books that cost less than \$1 were not as common as many people would like to have had them. As yet, this is still true. Both publisher and bookseller are probably equally responsible; but the bookseller may be the more responsible of the two, inasmuch as he has usually considered it not profitable to handle books which sold for less than that amount. The publisher, consequently, being dependent on the bookseller for outlets to the customer, has priced his output accordingly. In recent years, however, the five-and ten-cent stores

<sup>13</sup> Duffus, op. cit., p. 130.

have achieved considerable success in marketing books at very low cost, and certain series issued by publishers at less than \$1 have proved successful. Both publisher and bookseller have been timid in their approach to this problem, and because books could not be secured at lower prices during the depression, book sales dropped sharply, in contrast with the sales of lower-priced newspapers and magazines.

The effort to provide books which are not beyond the reading ability of a large part (approximately 50 per cent) of the adult population has made considerable progress since 1926. The Committee on Readable Books, appointed from both the American Library Association and the American Association for Adult Education, has carried out several studies to determine reader interest15 and factors which make for difficulty in reading;16 and it is now directing its attention to the practical application of these findings by way of the preparation of manuscripts under the direction of the Readability Laboratory of Columbia University. Lists of books which are deemed suitable for readers in this category have been compiled by Felsenthal, 17 Hoit, 18 and Chancellor, 19 and the University of Chicago Press has issued a series of ten pamphlets20 written particularly with this group in mind. With careful investigation and imaginative experimentation in this field—both largely lacking until recently—it is hoped that a very salutary change in this aspect of the whole publishing and bookselling enterprise may be effected.

<sup>&</sup>lt;sup>15</sup> Douglas Waples and R. W. Tyler, What People Want To Read About (Chicago: American Library Association and University of Chicago Press, 1931).

<sup>&</sup>lt;sup>16</sup> W. S. Gray and B. E. Leary, What Makes a Book Readable (Chicago: University of Chicago Press, 1935).

<sup>&</sup>lt;sup>17</sup> Emma Felsenthal, Readable Books in Many Subjects (Chicago: American Library Association, 1929).

<sup>&</sup>lt;sup>18</sup> Doris Hoit, comp., *Books of General Interest for Today's Readers* (Chicago: American Library Association and the American Association for Adult Education, in cooperation with the U.S. Office of Education, 1934).

<sup>&</sup>lt;sup>19</sup> John Chancellor, Available Reading Material for Native-born Adult Illiterates and Near Illiterates (Washington: U.S. Bureau of Prisons, 1933).

<sup>20</sup> American Primers (Chicago: University of Chicago Press, 1934-36).

### CHAPTER IX

## MAGAZINES AND NEWSPAPERS

BOOKS, magazines, and newspapers constitute the principal resources of libraries. They have served increasingly from the invention of printing as the media upon which society has mainly relied for the perpetuation and diffusion of knowledge. Their position in this field, though challenged today by the radio and the movie, is still a commanding one. The distribution and accessibility of magazines and newspapers may be presented together with the distribution and accessibility of books.

At the outset, however, it should be noted that the three media exhibit several significant differences. Some of these relate to the range and extent of their production, some to the parts of the population which they serve, and others to their role in libraries.

Mr. Duffus was quoted in chapter viii as saying that newspapers and magazines were heavy lines in our cultural pattern, whereas books, as yet, are but faint traceries. Both newspapers and magazines, especially newspapers, have become "big business." The wares which they sell are news and advertising and, although both suffered a decline from 1929 to 1933, they were in a sense depression-proof as contrasted with books, and their circulation began to increase in 1934 when circulation of books in libraries began to show a decline. Data concerning their production from 1925 to 1935 is contrasted in Table 63 with that of books and pamphlets.

Newspapers and magazines may not only be considered as big business, but it is generally recognized that they are read by a much greater per cent of the population than are books. Books are read by probably not more than 25 per cent of the reading population. As a matter of fact, only approximately

one-half of the adult population, as shown in the preceding chapter, have attained a sufficiently high level of reading skill to enable them to read with ease and understanding most of the books now published for adults. Mr. Waples, after many years of careful study of the reading behavior of adults, reports

TABLE 63\*

Number of Copies of Books, Pamphlets, Magazines, and Daily and Sunday Newspapers Produced in the United States, 1925–35

Publication	1925	1927	1929	1931	1933	1935
Books: Number (in thousands) Per 100 population	200,997 175		<sup>21</sup> 4,334 176			
Pamphlets: Number (in thousands). Per 1∞ population	232,214 202		215,865 178			
Magazines: Number Circulation (in thousands) Circulation per 100 population.	179,281	153,954		183,519	174,759	178,614
Daily newspapers: Number	2,116 37,407 33	41,368	42,015	41,294	37,630	
Sunday newspapers:  Number	597 25,630 22			555 27,453 22	489 25,454 20	

<sup>\*</sup>Source Compiled from data for the years 1925, 1927, and 1931, as given in U.S. Bur. Census, Census of Manufactures 1925; 1927; 1937, Printing and Publishing and Allied Industries (Wash.: Govt. Print. Off., 1927; 1930, 1934); and from data for the years 1929, 1933, and 1935 in U.S. Bur. Census, "Census of Manufactures: 1935, Printing and Publishing" (Mimeo release; Industries Nos. 508 and 510; April 14, 1937), pp. 7-9.

that "surveys in predepression years have found at least two magazine readers to one book reader. The ratio of those who read something in some magazine to those who digest any one substantial book is not less than six to one, and probably much larger."

Douglas Waples, People and Print: Social Aspects of Reading in the Depression (Chicago: University of Chicago Press, 1937), p. 72.

The book proves too difficult to that part of the population whose reading skill is limited. The magazine, though frequently not essentially less difficult to read than the book, is read much more extensively. The content and interest of the articles, the brevity of statement, the frequent use of illustrations, and, in the case of some of the publications with the largest circulations, the studied simplification of the text, contribute to ease in reading and general popularity. The daily newspaper, including as it does news, editorials, feature stories, sports, financial reports, comics, advertisements, etc., and, in the case of the tabloids, an excess of illustrations, reaches a maximum of approximately 90 per cent of the entire reading population. Miss Fair, in an extensive study of readers interviewed in South Chicago in 1934, found that 8 per cent reported no reading whatever, 17 per cent read books, 50 per cent read magazines, and 90 per cent, newspapers.2 The popularity of both magazines and newspapers, as contrasted with that of books, is undoubtedly influenced in part by their cheapness and greater availability.

From the point of view of the source from which books, magazines, and newspapers are secured, and of the use—broadly speaking—which patrons of public libraries make of them, the three media are further differentiated. Figure 69, prepared by Mr. Ellsworth and based upon returns from 10,000 readers ten years of age, or older, in South Chicago and St. Louis in 1933–34, indicates by per cent the extent to which different agencies supply books and magazines to patrons in those two cities.<sup>3</sup> The two communities represent highly urbanized manufacturing and residential sections. The role of the public library is distinctive in the case of books, in that the library is shown to supply 44.7 per cent of these, but is comparatively unimpressive in the case of magazines.

<sup>&</sup>lt;sup>2</sup> E. M. Fair, "The Public Library versus Other Sources of Books" (Unpublished Master's thesis, Graduate Library School, University of Chicago, 1935), p. 10.

<sup>&</sup>lt;sup>3</sup> R. E. Ellsworth, "The Distribution of Books and Magazines in Selected Communities" (Unpublished Ph.D. dissertation, Graduate Library School, University of Chicago, 1937), p. 10.

Figure 70 carries the analysis farther in the distribution of activities engaged in by patrons of the circulation department

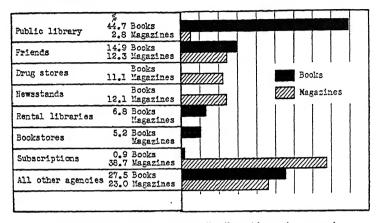


Fig. 69.—Per cent of books and magazines distributed by various agencies, 1933-34. The graph should be read as follows: "44.7 per cent of all books read were secured from the public library; 14.9 per cent from friends, etc.; 2.8 per cent of all magazines read were secured from the public library; 12.3 per cent from friends, etc." All other agencies include: home, church, club, and school libraries.

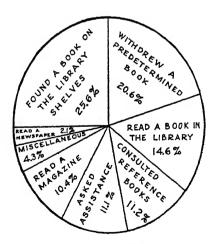


Fig. 70.—Diagram of activities of patrons of circulation department of the New York Public Library, January, 1936.

of the New York Public Library in January, 1936. It was prepared by Mr. Haygood<sup>4</sup> on the basis of over 16,000 returns. If

4 W. C. Haygood, "Who Uses the Public Library" (MS in Press).

all the patrons' per cents of activities which may have related to books should be combined—as 25.6 per cent for those who found a book on the shelves, 20.6 per cent for those who withdrew a predetermined book, 14.6 per cent for those who read a book in the library, 11.2 per cent for those who consulted reference books, and 11.1 per cent for those who asked for assistance—the resulting total would amount to 83.1 per cent. In

TABLE 64\*
Newspapers and Periodicals Held by Libraries
in 490 Cities, 1935

Population	Average Number per City		
ropulation	Newspapers	Periodicals	
2,500- 5,000	5 7 7.0 8 4 18 6 23 2 36.8 106.0	51 1 68 7 109 4 150.2 248.2 329.8 767 4 1,851.3	
Total cities	22 4	218 9	

<sup>\*</sup> U.S. Natl. Resources Com., Natl. Research Com. on Urbanism ["A Study of Communication Facilities"] (MS in preparation), Table 116.

contrast, there is a total of 12.5 per cent for those whose activities relate to periodicals (resulting from 10.4 per cent who read a magazine and 2.1 per cent who read a newspaper), plus the small total of 4.3 per cent for those patrons whose activities were classified as miscellaneous.

The number of magazines and newspapers held by libraries in 490 cities, in 1935, is shown in Table 64. Bound files of such publications serve as a fundamental part of the library's reference material. Undoubtedly, the use of both media varies in different types of libraries. The preservation of such publications, particularly newspapers, will probably be greatly in-

TABLE 65\* CIRCULATION OF FORTY-SEVEN NATIONAL MAGAZINES PER 1,000 Population, 1931

		Circul	Circulation		
State	RANE	Total	Per 1,000 Population	Standard Score	
Nevada	ı	47,861	526	1 8o	
California	2	2,951,188	520	1 75	
Oregon	3	492,814	517	I 73	
Vermont	4	180,691	502	1 60	
Washington.		774,490	495	I 54	
Wyoming	5 6	100,776	447	1 12	
New Hampshire.	7	206,835	445	III	
Connecticut	8	698,590	435	1 02	
Montana	9	229,229	426	0 94	
Maine	IO	334,∞8	419	0 88	
Idaho	11	178,643	401	0 73	
Colorado	12	411,873	398	0.70	
Massachusetts	13	1,687,182	390	0.69	
Ohio	13 I4	2,510,089	397 378		
New York	15	4,682,041	372	0.53	
Arizona	16	160,646	3/2 369	0 47	
Florida	17	533,288		0 45	
Iowa	18	868,651	363	0.40	
Illinois	19		352	0 30	
Michigan	_	2,662,681	349	0.28	
3.0	19 21	1,691,407	349	0.28	
701 1 7 1 1	22	893,403	348	0 27	
T 1		237,579	346	0.25	
New Jersey.	23	82,088	344	0 23	
Nebraska	24	1,367,392	338	0 18	
Indiana	25 26	461,606	335	0.16	
Utah		1,080,921	334	0 15	
D	27 28	164,005	323	0.05	
Kansas		3,082,511	320	0.03	
77"	29	581,980	309	-0.07	
0 1 0 1	30	895,448	305	-o 10	
15.	31	202,676	293	-0.21	
36 3 3	32	1,035,420	285	-0.28	
\r \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	33	438,113	269	-0 4I	
TT7 T7	34	173,239	<sup>2</sup> 54	-0.54	
XT XC .	35	402,275	233	-0.73	
T .	36	97,6∞	231	-o <sub>74</sub>	
Oklahoma	37	1,309,951	225	-0.79	
Tr	38	531,121	222	-0.82	
CD .	39	493,943	204	-o 9 <b>8</b>	
Kentucky	40	455,835	174	-1.23	
T	4I	433,162	166	-1.30	
^ ·	42	316,172	150	-1. <sub>44</sub>	
North Carolina	43	409,395	141	-I.52	
Arkaneae	44	439,032	138	-1.55	
Arkansas	45	252,624	136	— r . 56	
Alabama	46	327,299	124	<b>-1.6</b> 7	
South Carolina	<del>4</del> 7	197,498	114	-1.75	
Mississippi	48	202,840	101	<u> — 1.87 </u>	
		1	V (1)		

<sup>\*</sup> Source: Adapted from data reported in the "International Yearbook Number," Editor and Publisher, LXIV (January 50, 1932), 116.

Mean per 1,000 population (based on means of the 48 states), 317; standard deviation, 115.8; U.S. total, 38,278,743; U.S. circulation per 1,000 population (including District of Columbia), 312.

creased in the future by the use of films, which will insure longer life and reduced costs.

Two other facts concerning the data regarding these two media of communication of ideas should be noted. First of all, they are very accessible. Inasmuch as both types of publication usually carry advertisements, it is necessary that they maintain accurate records of their distribution. This they do through either the Audit Bureau of Circulations Company, which makes audits semi-annually for many magazines and most daily newspapers, or through special analyses prepared by the magazines themselves. In the latter instances the analyses are frequently elaborate and break the circulation down by states, counties, cities, and even different sections in cities. The analyses are also divided between subscription and newsstand sales and are full in all respects. The distribution of magazines and newspapers, consequently, can be studied in detail. Through these analyses the variation in distribution among counties in a given state can be vividly portrayed, since the number of copies received by each county or incorporated community within a county is usually indicated.

In the second place, the data bear upon the question whether magazines and newspapers play compensating roles in those communities in which libraries are lacking. The country weekly and the farm journal seem to afford such a compensating service. At least, they are to be found more frequently in rural areas than are magazines and dailies, although the latter are not found in greater number in those communities where libraries are poor; on the contrary, the general pattern of their distribution is very similar to that of libraries.

### DISTRIBUTION OF MAGAZINES

Table 65 and Figures 71 and 72 show the combined circulation of a single issue of each of forty-seven leading magazines in each state, adjusted to population in 1931. The range is from more than one magazine for every two inhabitants in Nevada,

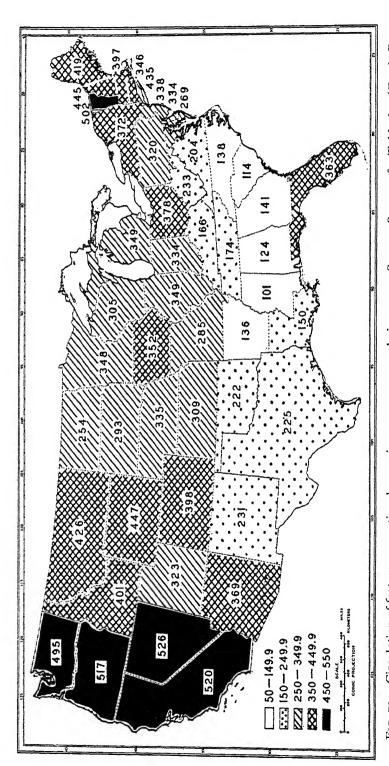


Fig. 71.—Circulation of forty-seven national magazines per 1,000 population, 1931. Source: Same as for Table 65. (Goode Base Map No. 110, published by the University of Chicago Press. Used by permission.)

California, Oregon, and Vermont to one for every ten in Mississippi. If these data for combined magazine circulation are reliable as an index of magazine reading in the various states, it is clear that magazines do not supplement libraries spatially. Those states in which libraries are most highly developed also tend to buy the most magazines, and the residents of the states with underdeveloped libraries buy fewest magazines. If Figure 71, showing the distribution of magazines, is compared with the map showing the index of library development for public libraries in 1934 (Fig. 50), a considerable degree of correlation

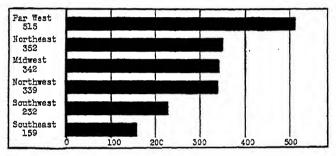


Fig. 72.—Regional summary of circulation of forty-seven national magazines per 1,000 population, 1931.

becomes evident. Seventeen states are in the same interval on both maps, while twenty-five vary only one interval. Rhode Island and New Jersey rank two intervals higher with respect to the library index than in magazine purchases, while Arizona, Florida, Idaho, and North Dakota rank two intervals higher in magazine circulation. In these six states it may be that magazines and library books do supplement one another to some extent as sources of ideas, information, and recreation. In the other forty-two states no evidence of such supplementary action may be derived from the two maps under consideration.

If Figure 71 were made strictly comparable with Figure 50, by basing both on standard scores and making the intervals the same, twenty-two states would be in the same interval, while twenty-two would vary only one interval. However, four states would still vary two intervals. Florida's standard score, for ex-

TABLE 66\* CIRCULATION OF FORTY-TWO FARM PUBLICATIONS PER 1,000 POPULATION, 1928

		Circui		
State	RANK		STANDARD	
STATE	RANK	Total	Per 1,000 Population	Score
Iowa	1	821,648	332 52	2.75
North Dakota	2	218,610	321.09	2.60
South Dakota	3	212,998	307.42	2.42
Nebraska	4	420,311	305 02	2.39
Kansas	5	474,260	252 13	1.69
Montana	6	108,290	201 43	1.02
Minnesota	7	501,604	195 64	0.95
Idaho	8	86,590	194 57	0.93
Wisconsin	9	569,136	193 65	0.92
Vermont	10	65,514	182 18	0.77
Indiana	II	538,645	166 33	0.56
Wyoming	12	36,259	160.75	0.49
Missouri	13	574,044	158 17	0.45
Oklahoma	14	355,203	148 25	0.32
Maine	15	105,079	131.77	0.10
Oregon	16	112,134	117.57	-0.08
New Hampshire	17	54,343	116.79	-0.10
Colorado	18	120,174	116 02	-0.11
Virginia	19	278,856	115.14	-o 12
Michigan	20	526,411	108.71	-0.20
Arkansas	21	200,560	108.15	-0 21
Illinois	22	817,544	107 14	-0.22
Ohio	23	709,861	106 80	-0.23
North Carolina	24	332,852	104.99	-0.25
Mississippi	25	209,512	104.24	-0.26
Washington	26	157,216	100 56	-o 31
Texas	27	570,717	97.98	-0.34
Utah	28	48,068	94.65	-0.38
Kentucky	29	235,869	90.21	-0.45
Nevada	30	8,097	88.92	-0.46
West Virginia	31	151,461	87.58	-0.48
Alabama	32	227,868	86.11	-0.50
Tennessee	33	221,071	84.49	-0.52
Georgia	34	238,751	82.09	-0.55
South Carolina	35	142,573	82.∞	-0.55
Delaware	36	19,229	80.67	-o.57
Pennsylvania	37	634,531	65.88	-0.77
Florida	38	91,797	62 52	-o 81
Maryland	39	99,827	61.18	-o.83
New Mexico	40	25,658	60 61	<b>-</b> 0.8₄
Louisiana	4I	120,797	57 48	<b>−</b> o 88
Connecticut	42	85,744	53 36	-0.93
New York	43	664,066	52.75	-0.94
California	44	295,346	52.02	-0.95
Arizona	45	21,892	50.26	-o 97
New Jersey	46	158,241	39.16	-1.12
Massachusetts	47	154,737	36.41	<b>—</b> 1.16
Rhode Island	48	18,873	27.45	-I 27

<sup>\*</sup>Source: Meredith Pub. Co., Circulation of Farm Publications by States and Counties: Suppl. to U.S. Bur. For. and Dom. Comm., Market Data Handbook of United States, Dom. Ser., No. 30 (Wash.: Govt. Print. Off, 1929), p. 5.

Mean per 1,000 population (based on means of the 48 states), 123.98; standard deviation, 75.703; U.S. median for 48 states, 104.62; U.S. total, 12,849,126; U.S. circulation per 1,000 population (including District of Columbia), 104.66.

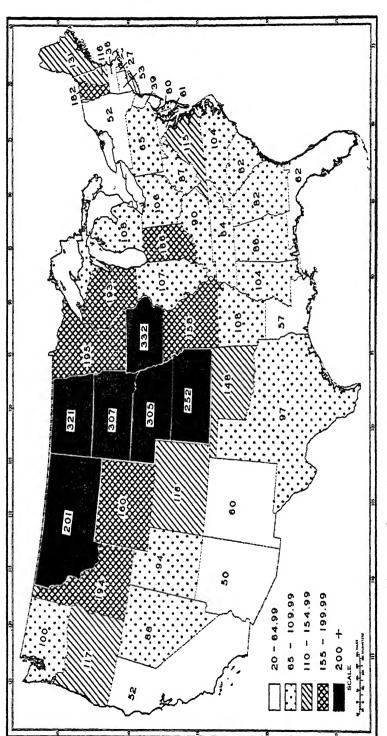


Fig. 73.—Circulation of forty-two farm publications per 1,000 population, 1928. Source: Same as for Table 66. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

ample, with respect to libraries is -0.82, and with respect to magazines, 0.40. Her winter visitors, very likely, account for the relatively high magazine purchases, but they do not contribute greatly to permanent library development.

Later data could be substituted for those which appear in Table 65. It seems desirable to use those for 1931, however, as they more nearly represent the general pattern of distribution that prevailed in the late 1920's and early 1930's, before the worst effects of the depression were felt. While the number of copies of magazines published during the depression did not drop so much as did library support and book production, there was a decline. The total number of copies of magazines published at two-year intervals, 1929–35, exhibiting this decline has already been shown in Table 63.

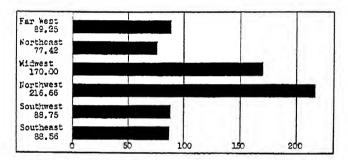


Fig. 74.—Regional summary of circulation of forty-two farm publications per 1,000 population, 1928.

### DISTRIBUTION OF FARM PUBLICATIONS

Since Tables 63, 64, and 65 did not include statistics of circulation for any farm periodicals, and since data combining both general and farm publications would be difficult to interpret, Table 66 and Figures 73 and 74 are presented showing the combined circulation of forty-two farm publications in 1928. A definite negative relationship seems to exist between the circulation of farm journals and the circulation of general magazines, and between the distribution of farm periodicals and library development. In other words, farm publications go where li-

TABLE 67\*

Circulation of 1,923 Daily Newspapers per 1,000

Population, 1931

		CIRCUL			
State	RANK	Total	Per 1,000 Population	Standard Score	
Massachusetts .	I	2,395,233	563 6	2 66	
New York	2	7,073,616	561.9	2.65	
Missouri	3	1,625,951	448 0	1.68	
Illinois	4	3,152,081	413 I	1 39	
California		2,315,797	407 9	I 35	
Washington	5 6	636,258	407 0	I 34	
Oregon	7	378,396	396 7	1 25	
Ohio	8	2,489,438	374 5	1 06	
Maryland .	9	579,525	355 2	0 90	
Pennsylvania	10	3,496,749	353 7	0 89	
Rhode Island.	II	226,895	330 0	0 69	
Indiana	12	1,047,729	323.5	0 63	
Nevada	13	28,099	308 6	0 51	
Iowa	13 I4	756,960	306 3	0 49	
Michigan	15	1,462,012	301 9	0 45	
Minnesota.	16	766,158	298 8	0 42	
Colorado	17	300,626	290.2	0 35	
Connecticut	18	461,202	287 O		
Nebraska		364,828	264 8	0 32	
Utah	19 20		•	0 14	
Tennessee		129,200	254 4	0 05	
	21	661,137	252.7	0 03	
	22	723,106	246.0	-0 02	
Maine	23	194,199	243.5	-0.04	
Oklahoma	<del>24</del>	583,291	243 4	-0.04	
Florida	25	351,869	<sup>2</sup> 39·7	-0.08	
Kansas	26	431,536	229.4	-0.16	
Delaware	27	53,882	226.0	-0.19	
Texas	28	1,287,060	221 0	-0.23	
New Jersey	29	839,948	207 8	-0.35	
Arizona	30	84,998	195.1	-0.45	
Montana	31	93,963	174.8	-0.62	
Vermont	32	61,666	171.5	-0 65	
Idaho	33	76,072	170.9	-0.66	
Louisiana	34	352,661	167.8	-0.68	
Virginia	35	391,103	161.5	-0.74	
Kentucky	ვ6	419,894	160.6	-0.74	
West Virginia	37	258,653	149.6	-0.84	
Georgia	38	424,097	145.8	-0.87	
New Hampshire	39	66,757	143.5	-0.89	
South Dakota	40	92,372	133.3	-0.98	
New Mexico	41	55,583	131.3	-0.99	
Alabama	42	342,013	129.2	10.1	
North Carolina	43	344,266	108.6	-1.18	
North Dakota	44	72,929	107.1	-1.20	
Wyoming	45	23,125	102 5	-1.24	
South Carolina	46	149,595	86.0	-1.38	
Arkansas	47	153,341	82 7	-1.40	
Mississippi	48	116,939	58.2	-1.61	
			S T		

<sup>\*</sup> Source: "International Yearbook Number," Editor and Publisher, LXIV (January 30, 1932), 114.

Mean per 1,000 population (based on means of the 48 states), 248.68; standard deviation, 118.35; U.S. total, 38,761,187; U.S. mean per 1,000 population (including District of Columbia), 315.71.

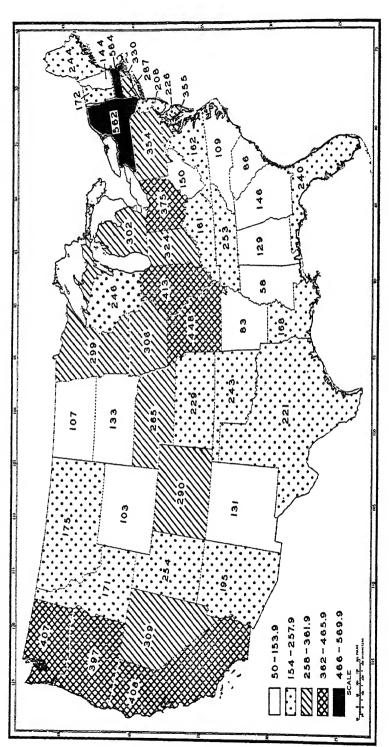


Fig. 75.—Circulation of 1,923 daily newspapers per 1,000 population, 1931. Source: Same as for Table 67. (Goode Base Map, No. 110, published by University of Chicago Press. Used by permission.)

brary facilities do not, unless library service is developed on a county-wide basis. This is to be expected, in the light of the lack of library facilities in those regions where the most potential readers of farm periodicals live. The widest variation between the two maps (Figures 71 and 73) will be seen to be in the relatively urban states.

Further analysis of magazines into subclasses fails to bring to light any marked differences from the pattern presented by general magazines, except that magazines of opinion and criticism are found to have a comparatively more extensive circulation in the Northeast and the Far West, whereas magazines of the more popular type rank comparatively higher in the Southeast.

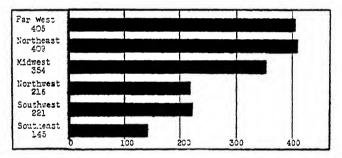


Fig. 76.—Regional summary of circulation of 1,923 daily newspapers per 1,000 population, 1931.

### DISTRIBUTION OF NEWSPAPERS

Three general types of newspapers may be noted: the daily, including morning and evening dailies and Sunday issues; the foreign-language dailies; and the weekly, semiweekly, and triweekly rural papers. The first two types are to be found principally in the large cities, the latter, in the smaller cities and country towns. In 1935, there were 1,934 dailies, 124 foreign-language dailies, and 10,027 weeklies, et al.

The pattern of daily newspaper circulation, as pictured in Table 67 and Figures 75 and 76, varies interestingly from the pattern of magazine circulation. The great urban newspaper extends beyond the metropolitan area in which it is created.

Its influence is clearly discernible in Massachusetts, New York. Ohio, Illinois, and Missouri, where major newspapers serve not only the immediate populations of the cities in which they are located but the adjoining areas and the nation at large. There is also a tendency for library development, magazine circulation, and newspaper circulation to show a considerable degree of correlation, though the newspaper pattern differs somewhat from the other two. In spite of the fact that the great metro-

TABLE, 68\* Number and Circulation of Daily and Sunday Newspapers (English Language) in the United States, 1920-35

Year	DAILY	Newspapers	SUNDAY NEWSPAPERS	
1 EAR	Number	Circulation	Number	Circulation
1920 1925 1930 1931 1932 1933 1934	2,042 2,008 1,942 1,923 1,913 1,911 1,929 1,950	27,790,656 33,739,369 39,589,172 38,761,187 36,407,689 35,175,238 36,709,010 38,155,540	522 548 521 513 518 506 505	17,083,604 23,354,622 26,413,047 25,701,798 24,859,888 24,040,630 26,544,516 28,147,343

<sup>\*</sup>Source: Data for 1925 from "International Yearbook Number," Editor and Publisher, LXV (Jan. 28, 1933), 98; data for 1930, 1931, and 1932 from p. 101; data for 1933, 1934, and 1935 from LXIX (Jan. 25, 3yer figures are not used here, since they give only annual estimates of circulation, including Canadian dailies, without separate figures for Canada.

politan daily tends to transcend local, state, and regional boundaries, its distribution is less national than is that of the magazine or the library. This correspondence on the part of all three is evidenced in the far western states, New York, Massachusetts, the Dakotas, Ohio, and the southern states. States in which negative correlation seems to be indicated (or where one factor supplements one or more of the others) are: Wisconsin, Wyoming, Missouri, and several of the New England states. One aspect of the variation in the circulation pattern of library books and daily newspapers in large cities is that, whereas the per cent of registrants and per capita circulation in libraries

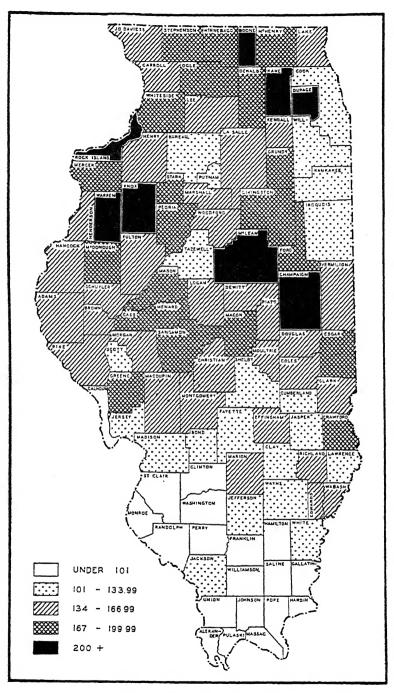


Fig. 77.—Circulation of Curtis and Crowell magazines, Illinois, per 1,000 population, 1933. Source: Curtis Publishing Company, Sales Opportunities, 1934–1935 (Philadelphia: Curtis Publishing Company, 1934); Crowell Publishing Company, Crowell Circulations, 1934 (New York: Crowell Publishing Company, [1934]).

tend to decline in relation to the increase in size of population, exactly the opposite happens in the case of the per cent of the population who are newspaper readers and in the number of copies read per capita. In the case of the newspaper, the larger the city, the higher are both per cents. The distribution of the country weekly newspapers, when mapped, exhibits a pattern somewhat similar to that of farm magazines. They are found in the small towns and rural areas. With these exceptions, however, it is evident that both libraries and newspaper coverage are best developed in urban areas.

### VARIATIONS WITHIN A STATE

Variations in distribution among counties within a given state show the same tendencies as variations among states. Figures 77-80 show the relative status of the counties of Illinois with respect to magazine and daily newspaper circulation. As in the case of the forty-eight states, there seems to be some degree of correlation between the distribution of library facilities indicated both by the library index and by the circulation of daily newspapers and general magazines. The differences in the development of library resources in the northern and southern halves of the state are clearly discernible, and individual counties tend, for the most part, to rank approximately the same on all three maps. In general, the counties which rank low in library development also rank relatively low in the number of general magazines and daily newspapers which they buy. However, the tendency is obviously less marked than it is in the case of the forty-eight states.

Table 69 concretely illustrates the relationships which exist in fifteen Illinois counties between the development of libraries, on the one hand, and the distribution of magazines and newspapers, on the other. In six of the fifteen cases, the plus or minus signs—meaning above or below the mean—agree in the first three columns, showing all six to be consistently above, or below, the average with respect to libraries, magazines, and daily newspapers. In two others, which did not enter into the

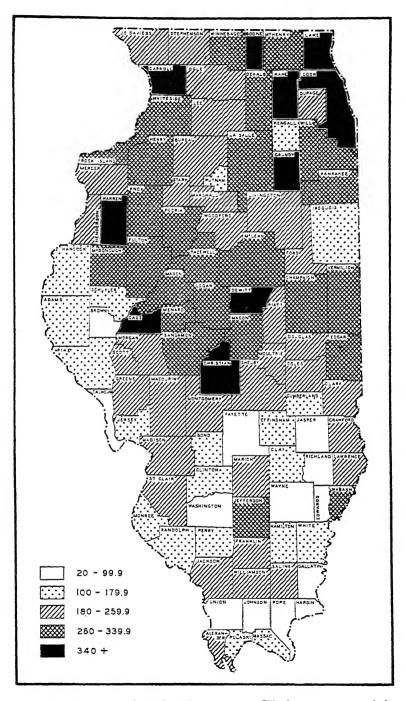


Fig. 78.—Circulation of A.B.C. daily newspapers, Illinois, per 1,000 population, 1927. Source: Adapted from U.S. Bureau of Foreign and Domestic Commerce, *Market Data Handbook of United States*, Domestic Commerce Series, No. 30 (Washington: Government Printing Office, 1929), pp. 37-39-

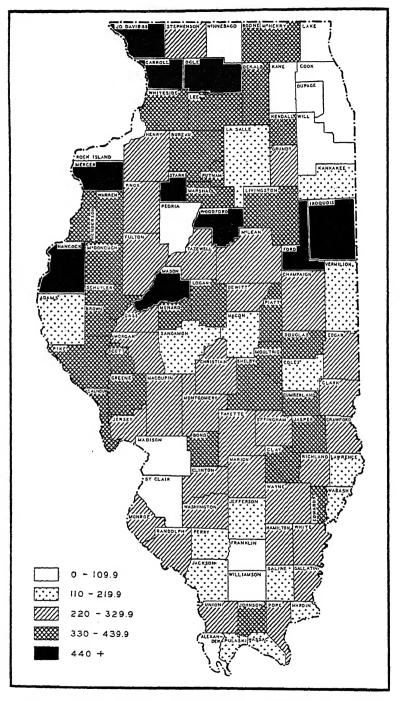


Fig. 79.—Circulation of forty-two farm publications, Illinois, per 1,000 population, 1928. Source: Meredith Publishing Company, Circulation of Farm Publications by States and Counties (Washington: Government Printing Office, 1929), pp. 12–13.

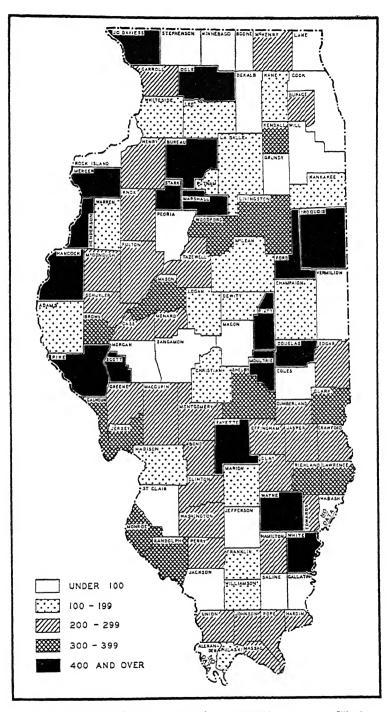


Fig. 80.—Circulation of weekly, semiweekly and triweekly newspapers, Illinois, per 1,000 population, 1927. Source: U.S. Bureau of Foreign and Domestic Commerce, *Market Data Handbook of United States*, pp. 37–39.

computation of the library index, the same trend is evident. Champaign County may be taken as an example of this type of relationship. It rates relatively high with respect to libraries, magazine circulation, and newspaper circulation, but relatively low in circulation of farm magazines and weekly newspapers. Again, Bureau County ranks below the av-

TABLE 69\*

Fifteen Counties in Illinois Compared with Respect to Library
Development and Newspaper and Magazine Circulation

	Library	Circulation Index				
Counties	Index	General Magazines	Daily Newspapers	Farm Publications	Weekly Newspapers	
Adams Alexander Bond Boone Brown Bureau Calhoun Carroll Cass Champaign Christian. Clark Clay Clinton Coles.	0.55 1.37 -1.07 -0.05 0.26 -0.30 None† 0.57 -0.50 0.84 -0.49 -1.15 -1.45 None† 0.21	0 0I -I 05 -0 49 I 32 0 26 -0.24 -I.09 0 33 0.86 2.23 0 0I 0 36 -0.49 -I.70 0.37	-0 62 -0.32 -1.10 1.76 -1.29 -0.20 -1.31 1.72 1.86 1.19 1.32 -0.19 -1.23 -1.18 0.38	-0 89 -1 77 0 54 0 77 0 96 0 88 0 60 1 81 0 06 -0 27 -0 24 0 30 0 43 -0 47 -0 69	-0 62 	

<sup>\*</sup> Source· Table 51, Meredith Pub. Co., op. cst., p. 12; U.S. Bur. For. and Dom. Comm, Market Data Handbook of Unsted States, p. 37.
† This county was not included in the computation of the library index.

erage in the first three columns and comparatively high in the last two. This general relationship may be considered as typical, though by no means universal. In some cases, counties show a relationship similar to that exemplified by Clinton County, which ranks below average in all but weekly newspapers, and only slightly above in that; or like Alexander County, in which, of those listed, library service seems to be relatively the best developed source of reading materials. Carroll County, above average in all five columns, represents still another variation.

Although different types of these variations are to be found, it is clear that the type represented by Champaign and Coles counties is more common than any other. Thus it can safely be said that, while the circulation of magazines and daily newspapers tends to agree with library development, the reading of farm journals and weekly newspapers tends to be related to it negatively.

### SUMMARY

The evidence cited in this chapter, and in those preceding, points conclusively to the fact that libraries, bookstores, rental libraries, magazines, and daily newspapers follow the same general pattern of distribution throughout the nation. The distributions of daily newspapers show less conformity to type than do the others, and the farm journal and the weekly newspaper present an almost exactly opposite pattern. Evidence introduced from the study by Mr. Ellsworth also emphasizes the important role which the public library plays as a source from which books are procured by the general public. In the case of magazines and newspapers, this role is comparatively negligible; but in the case of books, it exceeds that played by the bookstore, the rental library, loans from friends, or any other source.5 Further evidence to this effect was furnished by a study of our contemporary American culture, which says that "reading in general, outside of Bibles and school books, means reading the public library books";6 and to this Miss Mac Cracken adds her statement, that "where public libraries have inadequate resources, or where they do not serve people, there is no evidence that other sources are adequately supplying the people with books,"7

<sup>5</sup> Ellsworth, op. cit., p. 10.

<sup>&</sup>lt;sup>6</sup> R. S. Lynd and H. M. Lynd, *Middletown: A Study in Contemporary American Culture* (New York: Harcourt, Brace and Company, 1929), p. 230.

<sup>&</sup>lt;sup>7</sup> Maisry Mac Cracken, Library Needs in Dutchess County, New York (The Norrie Fellowship Report, 1933-35; Poughkeepsie, N.Y.: The Women's City and County Club, and Vassar College, 1937), p. 71.

## CHAPTER X

# COMMUNICATION FACILITIES

**\WO** of the most significant aspects of American life are the extent to which American people have become increasingly a nation of city dwellers, and the technological resourcefulness which they have displayed in perfecting the means of communication and transportation upon which city life depends. In 1930, 56.71 per cent of the total population lived in cities, and 96 metropolitan areas contained 44.6 per cent of the population. Since 1870 or 1880, except for the depression years, 1930-32, the per cent has steadily risen, and since 1933 the drift to the city has again become greater than the drift back to the farm. As this concentration of population has become greater and greater, the necessity of providing essential means of communication and transportation has likewise increased. The postal service, telegraph, telephone, radio, and motion picture, like libraries, bookstores, magazines, and newspapers, have tremendously multiplied the opportunities for the communication of ideas, while the railroad, streetcar, hardsurfaced road, automobile, bus, and airplane have completely covered the country with their amazingly extensive network of facilities for both transportation and communication.

It is not the purpose of this study to attempt to describe in detail the extent and character of these agencies. This has already been done in such studies as *Recent Social Trends in the United States*<sup>2</sup> and the individual monographs which grew out of that study; other extensive studies now under way in urbanization, communication, and recreation will further serve this

<sup>&</sup>lt;sup>1</sup> U.S. National Resources Committee, Research Committee on Urbanism ["A Study of Communication Facilities"] (MS in preparation).

<sup>&</sup>lt;sup>2</sup> President's Research Committee on Social Trends, Recent Social Trends in the United States (New York: McGraw-Hill Book Company, 1933).

TABLE 70\* Residence Telephones per 100 Population, 1932

Total   Per 100   Population   California   1   380,463   15,40   1,91   California   2   791,091   13,93   1,51   Kansas   3   257,154   13,67   144   Nebraska   4   184,404   13,38   1,36   Minnesota   5   323,495   12,62   1,15   Minnesota   5   962,866   12,62   1,15   Massachusetts   7   530,168   12,48   11   12   Connecticut   8   200,213   12,46   11   11   New Hampshire   9   57,174   12,29   1   06   Vermont   10   42,794   11   90   096   Wisconsin   11   338,009   11   50   85   Missouri   12   408,152   11   25   0,78   Minnesota   13   175,657   11   24   0,78   New York   14   1,413,982   11   23   0,78   Minne   15   87,972   10   93   0,72   0   0   0   0   0   0   0   0   0	_		Telepi	S=	
California. 2 791,091 13 93 1.51 Kansas. 3 257,154 13 67 1 44 Nebraska. 4 184,404 13.38 1.36 Minnesota. 5 323,495 12.62 1.15 Illinois. 5 962,896 12 62 1.15 Connecticut 8 200,213 12 46 111 New Hampshire. 9 57,174 12.29 1 06 Vermont. 10 42,794 11 90 0.96 Misconsin 11 338,009 11 50 0.85 Missouri. 12 468,152 11 25 0.78 Mashington. 13 175,657 11 24 0.78 New York. 14 1,413,982 11 23 0.78 New York. 14 1,413,982 11 23 0.78 Maine. 15 87,972 11 03 0.72 Oregon 16 104,278 10 93 0.70 Colorado. 17 112,991 10 91 0.69 Rhode Island. 18 70,792 10 30 0.72 Oregon 16 104,278 10 93 0.72 Colorado. 17 112,991 10 91 0.69 Rhode Island. 18 70,792 10 30 0.52 Nevada. 19 9,239 10 15 0.48 Indiana 20 324,163 10 01 0.45 Ohio. 21 659,841 9.93 Indiana 20 324,163 10 01 0.45 Ohio. 21 659,841 9.93 Pennsylvania. 24 833,971 8.66 0.08 Pennsylvania. 24 833,971 8.66 0.08 Delaware. 25 19,592 8.22 -0.04 Michigan. 26 396,466 8.19 -0.05 Maryland. 27 130,876 8.02 -0.09 Myroming 28 17,705 7.85 -0.14 Utah 29 37,802 7.44 -0.25 Idaho. 30 32,104 7.21 -0.31 North Dakota 31 48,948 7.19 -0.32 Oklahoma. 32 160,061 6.68 -0.46 Montana. 33 34,194 6.38 -0.54 Texas. 34 346,366 5.95 -0.66 Virginia. 35 134,338 5.55 -0.77 West Virginia 36 90,274 5.22 -0.85 Kentucky. 37 134,058 5.13 -0.88 Tennessee. 38 128,767 4.92 -0.94 Florida. 39 66,423 4.52 -1.10 Louisiana. 41 75,288 3.58 -1.30 Georgia. 42 88,899 3.66 -1.44 Arkansas. 43 55,040 2.97 -1.47 New Mexico 44 12,369 2.92 -1.48 North Carolina. 45 87,448 2.76 -1.52 Alabama. 46 61,459 2.32 -1.64 North Carolina. 47 33,996 1.96 -1.74	State	RANK	Total	Per 1∞ Population	STANDARD SCORE
Kansas 3 257,154 13 67 1 44 Nebraska 4 184,494 13.38 1.36 Minnesota 5 323,495 12.62 1.15 Missocit 8 200,213 12.46 111 New Hampshire 9 57,174 12.29 1 06 Vermont. 10 42,794 11 90 0 96 Wisconsin 11 338,009 11 50 0 85 Massonim 12 408,152 11 25 0 78 Washington 13 175,657 11 24 0 78 New York 14 1,413,982 11 23 0 78 Maine 15 87,972 11 03 0 72 Oregon 16 104,278 10 93 0 70 Colorado 17 112,991 10 91 0 69 Rhode Island 18 70,792 10 30 0 52 Nevada 19 9,239 10 15 0 48 Indiana 20 324,163 10 01 04,50 Ohio 21 659,841 9 93 0 42 New Jersey 22 400,367 9 91 0 42 New Jersey 33,971 8 66 0 08 Delaware 25 19,592 8.22 0 0 4 Michigan 26 396,466 8 19 0 0 9 Wyoming 28 17,705 7 85 0 0.14 Utah 29 37,802 7.44 0 0.25 Idaho 30 32,104 0 0.25 North Dakota 31 48,948 7.19 0 32 Oklahoma 32 160,061 6.68 0 0.46 Montana 33 34,294 6 38 0 0.54 Texas 34 346,366 5.995 0 0.66 Virginia 36 90,274 5.22 0 0.94 Florida 39 66,423 4.52 0 0.77 West Virginia 36 90,274 New Virginia 36 90,274 New Mexico 44 12,369 2.99 1.148 North Carolina 45 87,448 2 76 1.152 Alabama 46 61,459 2.32 0 0.154 North Carolina 47 33,996 1.96 0 0.174		I	380,463	15 40	1.91
Kansas         3         257, 154         13 67         I 44           Nebraska         4         184, 404         13.38         1.36           Minnesota         5         323, 495         12.62         I.15           Illinois         5         962,896         12 62         I.15           Massachusetts         7         530,168         12 48         I 12           Connecticut         8         200,213         12 46         I 11           New Hampshire         9         57,174         12.29         I 06           Vermont         10         42,794         II 90         0 96           Wisconsin         11         338,000         II 50         0 85           Missouri         12         408,132         II 25         0 78           Washington         13         175,657         II 24         0 78           New York         14         1,413,982         II 23         0 78           Maine         15         87,972         II 03         0 72           Oregon         16         104,278         10 93         0 70           Oregon         16         104,278         10 93         0 70	California	2	791,091	13 93	1.51
Nebraska.         4         184,404         13.38         1.36           Minnesota.         5         323,495         12.62         1.15           Illinois.         5         962,896         12.62         1.15           Massachusetts.         7         530,168         12.48         1.12           Connecticut.         8         200,213         12.46         1.11           New Hampshire.         9         57,174         12.29         1.06           Vermont.         10         42,794         11.90         0.96           Wisconsin.         11         338,000         11.50         0.95           Wisconsin.         12         408,152         11.20         0.76           Washington.         13         175,657         11.24         0.78           New York.         14         1,413,982         11.23         0.78           Maine.         15         87,972         11.03         0.72           Oregon         16         104,278         10.93         0.72           Colorado.         17         112,991         10.91         0.9           Rhode Island.         18         70,792         10.30         0.70 <td>Kansas</td> <td>3</td> <td>1</td> <td>1</td> <td>-</td>	Kansas	3	1	1	-
Minnesota.         5         323,495         12.62         1.15           Illinois.         5         962,896         12.62         1.15           Massachusetts.         7         530,168         12.48         1.12           Connecticut.         8         200,213         12.46         1.11           New Hampshire.         9         57,174         12.29         1.06           Wisconsin.         11         338,009         11 50         0.85           Missouri.         12         408,152         11 25         0.78           Missouri.         12         408,152         11 24         0.78           Missouri.         14         1,413,982         11 23         0.78           Mew York.         14         1,413,982         11 23         0.78           Maine.         15         87,972         11 03         0.72           Oregon         16         104,278         10 93         0.72           Oregon         16         104,278         10 93         0.72           Oregon         16         104,278         10 93         0.72           Oredo         17         112,991         10 91         0.69	Nebraska			- :	1 ' 2
Illinois			1		
Massachusetts         7         530,168         12 48         1 12           Connecticut         8         200,213         12 46         1 11           New Hampshire         9         57,174         12.29         1 06           Vermont         10         42,794         11 90         0 96           Wisconsin         11         338,009         11 50         0 85           Missouri         12         408,152         11 25         0 78           Washington         13         175,657         11 24         0 78           New York         14         1,413,982         11 23         0 78           Maine         15         87,972         11 03         0 72           Oregon         16         104,278         10 93         0 72           Colorado         17         112,991         10 91         0 69           Rhode Island         18         70,792         10 30         0 52           Nevada         19         9,239         10 15         0.48           Indiana         20         324,163         10 01         0.45           Ohio         21         659,841         9 93         0.42 <td< td=""><td></td><td></td><td></td><td>12 62</td><td></td></td<>				12 62	
Connecticut         8         200,213         12 46         1 11           New Hampshire         9         57,174         12.29         1 06           Vermont         10         42,794         11 90         0 96           Wisconsin         11         338,009         11 50         0 95           Missouri         12         408,152         11 25         0 78           Missouri         12         408,152         11 24         0 78           New York         14         1,413,982         11 23         0 78           Maine         15         87,972         11 03         0 72           Oregon         16         104,278         10 93         0 70           Colorado         17         112,991         10 91         0 69           Rhode Island         18         70,792         10 30         0 52           Nevada         19         9,239         10 15         0.48           Indiana         20         324,163         10 01         0.45           Ohio         21         659,841         9 93         0.42           South Dakota         23         67,930         9.80         0.39           Pen	Massachusetts	7	530,168	12 48	
Vermont.         10         42,794         11 90         0 96           Wisconsin         11         338,000         11 50         0 85           Missouri.         12         408,152         11 25         0 78           Washington.         13         175,657         11 24         0 78           New York.         14         1,413,982         11 23         0 78           Maine.         15         87,972         11 03         0 72           Oregon         16         104,278         10 93         0 70           Colorado.         17         112,991         10 91         0 69           Rhode Island.         18         70,792         10 30         0 52           Nevalda.         19         9,239         10 15         0.48           Indiana         20         324,163         10 01         0.45           Ohio         21         659,841         9 93         0.42           New Jersey.         22         400,367         9 91         0.42           South Dakota         23         67,930         9.80         0.39           Pennsylvania.         24         833,971         8.66         0.88		8	1		1 11
Vermont.         10         42,794         11 90         0 96           Wisconsin         11         338,009         11 50         0 85           Missouri         12         408,152         11 25         0 78           Washington         13         175,657         11 24         0 78           New York         14         1,413,982         11 23         0 78           Maine         15         87,972         11 03         0 72           Oregon         16         104,278         10 93         0 70           Colorado         17         112,991         10 91         0 69           Rhode Island         18         70,792         10 30         0 52           Nevada         19         9,239         10 15         0.48           Indiana         20         324,163         10 01         0.45           Ohio         21         659,841         9 93         0 42           South Dakota         23         67,930         9.80         0 39           Pennsylvania         24         833,971         8.66         0 68           Delaware         25         19,592         8.22         0 04           Mich		9	57,174	12.29	1 06
Wisconsin       11       338,∞9       11 50       0 85         Missouri       12       408,152       11 25       0 78         Washington       13       175,657       11 24       0 78         New York       14       1,413,982       11 23       0 78         Maine       15       87,972       11 03       0 72         Oregon       16       104,278       10 93       0 70         Colorado       17       112,991       10 91       0 69         Rhode Island       18       70,792       10 30       0 52         Nevada       19       9,239       10 15       0 45         Ohio       21       659,841       9 93       0 42         New Jersey       22       400,367       9 91       0 42         South Dakota       23       67,930       9.80       0 39         Pennsylvania       24       833,971       8 66       0 68         Delaware       25       19,592       8.22       0 4         Michigan       26       396,466       8 19       0 05         Maryland       27       130,876       8.02       0 09         Wyoming <t< td=""><td>Vermont</td><td>10</td><td></td><td>11 90</td><td>0 96</td></t<>	Vermont	10		11 90	0 96
Missouri.       12       408,152       11 25       0 78         Washington.       13       175,657       11 24       0 78         Maine.       15       87,972       11 03       0 72         Oregon.       16       104,278       10 93       0 70         Colorado.       17       112,991       10 91       0 69         Rhode Island.       18       70,792       10 30       0 52         Nevada.       19       9,239       10 15       0.48         Indiana       20       324,163       10 01       0 45         Ohio.       21       659,841       9 93       0 42         New Jersey.       22       400,367       9 91       0 42         South Dakota       23       67,930       9.80       0 39         Pennsylvania       24       833,971       8.66       0 68         Delaware.       25       19,592       8.22       -0 04         Michigan.       26       336,466       8 19       -0 05         Maryland.       27       130,876       8.02       -0 09         Wyoming       28       17,705       7 85       -0.14         Utah	Wisconsin	II		11 50	0 85
Washington.         13         175,657         11 24         0 78           New York.         14         1,413,982         11 23         0 78           Maine.         15         87,972         11 03         0 72           Oregon         16         104,278         10 93         0 70           Colorado.         17         112,991         10 91         0 69           Rhode Island.         18         70,792         10 30         0 52           Nevada.         19         9,239         10 15         0.48           Indiana         20         324,163         10 01         0 45           Ohio         21         659,841         9 93         0 42           New Jersey.         22         400,367         9 91         0 42           South Dakota         23         67,930         9.80         0 39           Pennsylvania         24         833,971         8 66         0 8		12			
New York.         14         1,413,982         11 23         0 78           Maine.         15         87,972         11 03         0 72           Oregon         16         104,278         10 93         0 70           Colorado.         17         112,991         10 91         0 69           Rhode Island.         18         70,792         10 30         0 52           Nevada.         19         9,239         10 15         0.48           Indiana         20         324,163         10 01         0 45           Ohio.         21         659,841         9 93         0 42           New Jersey.         22         400,367         9 91         0 42           New Jersey.         32         400,366         68         0 08	Washington	13	1	-	,
Maine.         15         87,972         11 03         0 72           Oregon         16         104,278         10 93         0 72           Colorado.         17         112,991         10 91         0 69           Rhode Island.         18         70,792         10 30         0 52           Nevada.         19         9,239         10 15         0.48           Indiana         20         324,163         10 01         0 45           Ohio.         21         659,841         9 93         0 42           New Jersey.         22         400,367         9 91         0 42           New Jersey.         22         400,366         8 19         0 39           Pennsylvania.         23         66         8         10         0 0 <td></td> <td>14</td> <td>1,413,982</td> <td>11 23</td> <td>0 78</td>		14	1,413,982	11 23	0 78
Oregon         16         104,278         10 93         0 70           Colorado         17         112,991         10 91         0 69           Rhode Island         18         70,792         10 30         0 52           Nevada         19         9,239         10 15         0.48           Indiana         20         324,163         10 01         0 45           Ohio         21         659,841         9 93         0 42           New Jersey         22         403,367         9 91         0 42           South Dakota         23         67,930         9.80         0 39           Pennsylvania         24         833,971         8.66         0 08           Delaware         25         19,592         8.22         -0 04           Michigan         26         396,466         8 19         -0 05           Maryland         27         130,876         8.02         -0 09           Wyoming         28         17,705         7.85         -0.14           Utah         29         37,802         7.44         -0.25           Idaho         30         32,104         7.21         -0.31           North Dakota<	Maine	15	87,972	11 03	
Rhode Island         18         70,792         10 30         0 52           Nevada         19         9,239         10 15         0.48           Indiana         20         324,163         10 01         0 45           Ohio         21         659,841         9 93         0 42           New Jersey         22         400,367         9 91         0 42           South Dakota         23         67,930         9.80         0 39           Pennsylvania         24         833,971         8 66         0 68           Delaware         25         19,592         8.22         -0 04           Michigan         26         396,466         8 19         -0 05           Maryland         27         130,876         8.02         -0 09           Wyoming         28         17,705         7 85         -0.14           Utah         29         37,802         7.44         -0.25           Idaho         30         32,104         7.21         -0 31           North Dakota         31         48,948         7.19         -0 32           Oklahoma         32         160,061         6.68         -0.46           Morth Da		16		10 93	0 70
Nevada.         19         9,239         10 15         0.48           Indiana         20         324,163         10 01         0 45           Ohio.         21         659,841         9 93         0 42           New Jersey.         22         400,367         9 91         0 42           South Dakota         23         67,930         9.80         0 39           Pennsylvania.         24         833,971         8 66         0 68           Delaware.         25         19,592         8.22         -0 04           Michigan.         26         396,466         8 19         -0 05           Maryland.         27         130,876         8.02         -0 09           Wyoming         28         17,705         7 85         -0.14           Utah         29         37,802         7.44         -0.25           Idaho.         30         32,104         7.21         -0.31           North Dakota         31         48,948         7.19         -0.25           Oklahoma.         32         160,061         6.68         -0.46           Montana.         33         34,294         6.38         -0.54           Tex		17	112,991	10 91	0 69
Nevada.         19         9,239         10 15         0.48           Indiana         20         324,163         10 01         0 45           Ohio.         21         659,841         9 93         0 42           New Jersey.         22         400,367         9 91         0 42           South Dakota         23         67,930         9.80         0 39           Pennsylvania         24         833,971         8 66         0 08           Delaware.         25         19,592         8.22         -0 04           Michigan.         26         396,466         8 19         -0 05           Maryland.         27         130,876         8.02         -0 09           Wyoming         28         17,705         7 85         -0.14           Utah         29         37,802         7.44         -0.25           Idaho.         30         32,104         7.21         -0.31           North Dakota         31         48,948         7.19         -0.32           Oklahoma.         32         160,061         6.68         -0.46           Montana.         33         34,294         6.38         -0.54           Texa		18	70,792	10 30	0 52
Ohio.         21         659, 841         9 93         0 42           New Jersey.         22         400, 367         9 91         0 42           South Dakota         23         67, 930         9.80         0 39           Pennsylvania         24         833, 971         8 66         0 08           Delaware         25         19, 592         8 .22         -0 04           Michigan         26         396, 466         8 19         -0 05           Maryland         27         130, 876         8 .02         -0 09           Wyoming         28         17, 705         7 85         -0.14           Utah         29         37, 802         7.44         -0.25           Idaho         30         32, 104         7.21         -0 31           North Dakota         31         48, 948         7.19         -0 32           Oklahoma         32         160, 061         6.68         -0.46           Montana         33         34, 294         6.38         -0.54           Texas         34         346, 366         5.95         -0.66           Virginia         35         134, 338         5.55         -0.77		19		10 15	0.48
New Jersey         22         400,367         9 91         0 42           South Dakota         23         67,930         9.80         0 39           Pennsylvania         24         833,971         8 66         0 08           Delaware         25         19,592         8.22         -0 04           Michigan         26         396,466         8 19         -0 05           Maryland         27         130,876         8.02         -0 09           Wyoming         28         17,705         7 85         -0.14           Utah         29         37,802         7.44         -0.25           Idaho         30         32,104         7.21         -0.31           North Dakota         31         48,948         7.19         -0.32           Oklahoma         32         160,061         6.68         -0.46           Montana         33         34,294         6.38         -0.54           Texas         34         346,366         5.95         -0.66           Virginia         35         134,338         5.55         -0.77           West Virginia         36         90,274         5.22         -0.85           Ke	Indiana	20	324, 163	10 01	0 45
South Dakota         23         67,930         9.80         0 39           Pennsylvania         24         833,971         8 66         0 68           Delaware         25         19,592         8.22         -0 04           Michigan         26         396,466         8 19         -0 05           Maryland         27         130,876         8 02         -0 09           Myoming         28         17,705         7 85         -0.14           Utah         29         37,802         7.44         -0.25           Idaho         30         32,104         7.21         -0.31           North Dakota         31         48,948         7.19         -0.32           Oklahoma         32         160,061         6.68         -0.46           Montana         33         34,294         6.38         -0.54           Texas         34         346,366         5.95         -0.66           Virginia         35         134,338         5.55         -0.77           West Virginia         36         90,274         5.22         -0.85           Kentucky         37         134,058         5.13         -0.88           Ten		21	659,841	9 93	0 42
Pennsylvania       24       833,971       8 66       0 08         Delaware       25       19,592       8.22       -0 04         Michigan       26       396,466       8 19       -0 05         Maryland       27       130,876       8.02       -0 09         Wyoming       28       17,705       7 85       -0.14         Utah       29       37,802       7.44       -0.25         Idaho       30       32,104       7.21       -0 31         North Dakota       31       48,948       7.19       -0 32         Oklahoma       32       160,061       6.68       -0.46         Montana       33       34,294       6.38       -0.54         Texas       34       346,366       5.95       -0.66         Virginia       35       134,338       5.55       -0.77         West Virginia       36       90,274       5.22       -0.85         Kentucky       37       134,058       5.13       -0.88         Tennessee       38       128,767       4.92       -0.94         Florida       39       66,423       4.52       -1.04         Arizona		22		9 91	0 42
Delaware.         25         19,592         8.22         -0 04           Michigan.         26         396,466         8 19         -0 05           Maryland.         27         130,876         8.02         -0 09           Wyoming.         28         17,705         7.85         -0.14           Utah         29         37,802         7.44         -0.25           Idaho.         30         32,104         7.21         -0.31           North Dakota         31         48,948         7.19         -0.32           Oklahoma.         32         160,061         6.68         -0.46           Montana.         33         34,294         6.38         -0.54           Texas.         34         346,366         5.95         -0.66           Virginia.         35         134,338         5.55         -0.77           West Virginia.         36         90,274         5.22         -0.85           Kentucky.         37         134,058         5.13         -0.88           Tennessee.         38         128,767         4.92         -0.94           Florida.         39         66,423         4.52         -1.04		23	67,930	9.80	0 39
Michigan.       26       396,466       8 19       -0 05         Maryland.       27       130,876       8.02       -0 09         Wyoming.       28       17,705       7 85       -0.14         Utah.       29       37,802       7.44       -0.25         Idaho.       30       32,104       7.21       -0 31         North Dakota       31       48,948       7.19       -0 32         Oklahoma.       32       160,061       6.68       -0.46         Montana.       33       34,294       6 38       -0.54         Texas.       34       346,366       5.95       -0.66         Virginia.       35       134,338       5.55       -0.77         West Virginia.       36       90,274       5.22       -0.85         Kentucky.       37       134,058       5.13       -0.88         Tennessee.       38       128,767       4.92       -0.94         Florida.       39       66,423       4.52       -1.04         Arizona.       40       18,407       4.22       -1.13         Louisiana.       41       75,288       3.58       -1.30         Georgia. <td></td> <td>24</td> <td>833,971</td> <td>8 66</td> <td>0 08</td>		24	833,971	8 66	0 08
Maryland.       27       130,876       8.02       -0 09         Wyoming       28       17,705       7 85       -0.14         Utah       29       37,802       7.44       -0.25         Idaho.       30       32,104       7.21       -0 31         North Dakota       31       48,948       7.19       -0 32         Oklahoma.       32       160,061       6.68       -0.46         Montana.       33       34,294       6 38       -0.54         Texas.       34       346,366       5.95       -0.66         Virginia.       35       134,338       5.55       -0.77         West Virginia.       36       90,274       5.22       -0.85         Kentucky.       37       134,058       5.13       -0.88         Tennessee.       38       128,767       4.92       -0.94         Florida.       39       66,423       4.52       -1.04         Arizona.       40       18,407       4.22       -1.13         Louisiana.       41       75,288       3.58       -1.30         Georgia.       42       88,859       3.06       -1.44         Arkansas.	Delaware		19,592	8.22	-0 04
Wyoming       28       17,705       7 85       -0.14         Utah       29       37,802       7.44       -0.25         Idaho       30       32,104       7.21       -0 31         North Dakota       31       48,948       7.19       -0 32         Oklahoma       32       160,061       6.68       -0.46         Montana       33       34,294       6 38       -0.54         Texas       34       346,366       5.95       -0.66         Virginia       35       134,338       5.55       -0.77         West Virginia       36       90,274       5.22       -0.85         Kentucky       37       134,058       5.13       -0.88         Tennessee       38       128,767       4.92       -0.94         Florida       39       66,423       4.52       -1.04         Arizona       40       18,407       4.22       -1.13         Louisiana       41       75,288       3.58       -1.30         Georgia       42       88,859       3.06       -1.44         Arkansas       43       55,040       2.97       -1.47         New Mexico       44 </td <td></td> <td>26</td> <td>396,466</td> <td>8 19</td> <td>-0 05</td>		26	396,466	8 19	-0 05
Utah         29         37,802         7.44         -0.25           Idaho         30         32,104         7.21         -0 31           North Dakota         31         48,948         7.19         -0 32           Oklahoma         32         160,061         6.68         -0.46           Montana         33         34,294         6.38         -0.54           Texas         34         346,366         5.95         -0.66           Virginia         35         134,338         5.55         -0.77           West Virginia         36         90,274         5.22         -0.85           Kentucky         37         134,058         5.13         -0.88           Tennessee         38         128,767         4.92         -0.94           Florida         39         66,423         4.52         -1.04           Arizona         40         18,407         4.22         -1.13           Louisiana         41         75,288         3.58         -1.30           Georgia         42         88,859         3.06         -1.44           Arkansas         43         55,040         2.97         -1.47           New Mexico<			130,876		-0 09
Idaho.         30         32,104         7.21         —0 31           North Dakota         31         48,948         7.19         —0 32           Oklahoma.         32         160,061         6.68         —0.46           Montana.         33         34,294         6.38         —0.54           Texas.         34         346,366         5.95         —0.66           Virginia.         35         134,338         5.55         —0.77           West Virginia.         36         90,274         5.22         —0.85           Kentucky.         37         134,058         5.13         —0.88           Tennessee.         38         128,767         4.92         —0.94           Florida.         39         66,423         4.52         —1.04           Arizona.         40         18,407         4.22         —1.13           Louisiana.         41         75,288         3.58         —1.30           Georgia.         42         88,859         3.06         —1.44           Arkansas.         43         55,040         2.97         —1.47           New Mexico.         44         12,369         2.92         —1.48		28	17,705	7 85	-0.14
North Dakota         31         48,948         7.19         -0 32           Oklahoma         32         160,061         6.68         -0.46           Montana         33         34,294         6.38         -0.54           Texas         34         346,366         5.95         -0.66           Virginia         35         134,338         5.55         -0.77           West Virginia         36         90,274         5.22         -0.85           Kentucky         37         134,058         5.13         -0.88           Tennessee         38         128,767         4.92         -0.94           Florida         39         66,423         4.52         -1.04           Arizona         40         18,407         4.22         -1.13           Louisiana         41         75,288         3.58         -1.30           Georgia         42         88,859         3.06         -1.44           Arkansas         43         55,040         2.97         -1.47           New Mexico         44         12,369         2.92         -1.48           North Carolina         45         87,448         2.76         -1.52		-			
Oklahoma       32       160,061       6.68       -0.46         Montana       33       34,294       6.38       -0.54         Texas       34       346,366       5.95       -0.66         Virginia       35       134,338       5.55       -0.77         West Virginia       36       90,274       5.22       -0.85         Kentucky       37       134,058       5.13       -0.88         Tennessee       38       128,767       4.92       -0.94         Florida       39       66,423       4.52       -1.04         Arizona       40       18,407       4.22       -1.13         Louisiana       41       75,288       3.58       -1.30         Georgia       42       88,859       3.06       -1.44         Arkansas       43       55,040       2.97       -1.47         New Mexico       44       12,369       2.92       -1.48         North Carolina       45       87,448       2.76       -1.52         Alabama       46       61,459       2.32       -1.64         South Carolina       47       33,996       1.96       -1.74		•		•	-
Montana       33       34,294       6 38       -0.54         Texas       34       346,366       5.95       -0.66         Virginia       35       134,338       5.55       -0.77         West Virginia       36       90,274       5.22       -0.85         Kentucky       37       134,058       5.13       -0.88         Tennessee       38       128,767       4.92       -0.94         Florida       39       66,423       4.52       -1.04         Arizona       40       18,407       4.22       -1.13         Louisiana       41       75,288       3.58       -1.30         Georgia       42       88,859       3.06       -1.44         Arkansas       43       55,040       2.97       -1.47         New Mexico       44       12,369       2.92       -1.48         North Carolina       45       87,448       2.76       -1.52         Alabama       46       61,459       2.32       -1.64         South Carolina       47       33,996       1.96       -1.74		-			
Texas.         34         346,366         5.95         -0.66           Virginia.         35         134,338         5.55         -0.77           West Virginia.         36         90,274         5.22         -0.85           Kentucky.         37         134,058         5.13         -0.88           Tennessee.         38         128,767         4.92         -0.94           Florida.         39         66,423         4.52         -1.04           Arizona.         40         18,407         4.22         -1.13           Louisiana.         41         75,288         3.58         -1.30           Georgia.         42         88,859         3.06         -1.44           Arkansas.         43         55,040         2.97         -1.47           New Mexico.         44         12,369         2.92         -1.48           North Carolina.         45         87,448         2.76         -1.52           Alabama.         46         61,459         2.32         -1.64           South Carolina.         47         33,996         1.96         -1.74		•			•
Virginia       35       134,338       5 55       -0.77         West Virginia       36       90,274       5.22       -0.85         Kentucky       37       134,058       5.13       -0.88         Tennessee       38       128,767       4.92       -0.94         Florida       39       66,423       4.52       -1.04         Arizona       40       18,407       4.22       -1.13         Louisiana       41       75,288       3.58       -1.30         Georgia       42       88,859       3.06       -1.44         Arkansas       43       55,040       2.97       -1.47         New Mexico       44       12,369       2.92       -1.48         North Carolina       45       87,448       2.76       -1.52         Alabama       46       61,459       2.32       -1.64         South Carolina       47       33,996       1.96       -1.74				-	7. 1
West Virginia       36       90,274       5.22       -0.85         Kentucky       37       134,058       5.13       -0.88         Tennessee       38       128,767       4.92       -0.94         Florida       39       66,423       4.52       -1.04         Arizona       40       18,407       4.22       -1.13         Louisiana       41       75,288       3.58       -1.30         Georgia       42       88,859       3.06       -1.44         Arkansas       43       55,040       2.97       -1.47         New Mexico       44       12,369       2.92       -1.48         North Carolina       45       87,448       2.76       -1.52         Alabama       46       61,459       2.32       -1.64         South Carolina       47       33,996       1.96       -1.74			1 1		
Kentucky     37     134,058     5.13     -0.88       Tennessee     38     128,767     4.92     -0.94       Florida     39     66,423     4.52     -1.04       Arizona     40     18,407     4.22     -1.13       Louisiana     41     75,288     3.58     -1.30       Georgia     42     88,859     3.06     -1.44       Arkansas     43     55,040     2.97     -1.47       New Mexico     44     12,369     2.92     -1.48       North Carolina     45     87,448     2.76     -1.52       Alabama     46     61,459     2.32     -1.64       South Carolina     47     33,996     1.96     -1.74			1		, ,
Tennessee     38     128,767     4.92     -0.94       Florida     39     66,423     4.52     -1.04       Arizona     40     18,407     4.22     -1.13       Louisiana     41     75,288     3.58     -1.30       Georgia     42     88,859     3.06     -1.44       Arkansas     43     55,040     2.97     -1.47       New Mexico     44     12,369     2.92     -1.48       North Carolina     45     87,448     2.76     -1.52       Alabama     46     61,459     2.32     -1.64       South Carolina     47     33,996     1.96     -1.74	West virginia		1	_	
Florida       39       66,423       4.52       —1.04         Arizona       40       18,407       4.22       —1.13         Louisiana       41       75,288       3.58       —1.30         Georgia       42       88,859       3.06       —1.44         Arkansas       43       55,040       2.97       —1.47         New Mexico       44       12,369       2.92       —1.48         North Carolina       45       87,448       2.76       —1.52         Alabama       46       61,459       2.32       —1.64         South Carolina       47       33,996       1.96       —1.74		- 1			
Arizona.     40     18,407     4.22     —1.13       Louisiana.     41     75,288     3.58     —1.30       Georgia.     42     88,859     3.06     —1.44       Arkansas.     43     55,040     2.97     —1.47       New Mexico.     44     12,369     2.92     —1.48       North Carolina.     45     87,448     2.76     —1.52       Alabama.     46     61,459     2.32     —1.64       South Carolina.     47     33,996     1.96     —1.74		•			
Louisiana.     4I     75,288     3.58     -I.30       Georgia.     42     88,859     3.06     -I.44       Arkansas.     43     55,040     2.97     -I.47       New Mexico.     44     12,369     2.92     -I.48       North Carolina.     45     87,448     2.76     -I.52       Alabama.     46     61,459     2.32     -I.64       South Carolina.     47     33,996     I.96     -I.74					•
Georgia		•			_
Arkansas.     43     55,040     2.97     -1.47       New Mexico.     44     12,369     2.92     -1.48       North Carolina.     45     87,448     2.76     -1.52       Alabama.     46     61,459     2.32     -1.64       South Carolina.     47     33,996     1.96     -1.74		•			
New Mexico     44     12,369     2.92     -1.48       North Carolina     45     87,448     2.76     -1.52       Alabama     46     61,459     2.32     -1.64       South Carolina     47     33,996     1.96     -1.74		•		•	
North Carolina.       45       87,448       2 76       -1.52         Alabama.       46       61,459       2.32       -1.64         South Carolina.       47       33,996       1.96       -1.74			1		
Alabama		• •			•
South Carolina					
		-			
1711001001PPI 1.94 1 -1./4			1 00	-	
**	remonissippi	40	20,93/	1.94	

<sup>\*</sup>Source: U.S. Bur. Census, Census of Electrical Industries: 1932, Telephones and Telegraphs (Wash.: Govt. Print. Off., 1934), p. 6.

Mean per 100 population (based on means of the 48 states), 8.37; standard deviation, 3.68, U.S. total, 11,089,946; U.S. residence telephones per 100 population (including District of Columbia), 9.03.

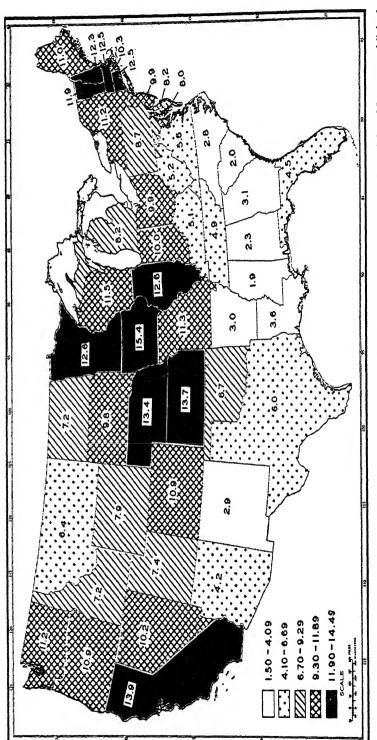


Fig. 81.—Residence telephones per 100 population, 1932. Source: Same as for Table 70. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

purpose.<sup>3</sup> However, since all these agencies contribute to the formulation of the commercial, recreational, and cultural pattern of American life, and particularly of American urban life, it may be appropriate to show their distribution in relation to the distribution of libraries, books, magazines, and newspapers. Accordingly, such treatment is given in this chapter to telephones, radios, motion pictures, automobiles, and hard-surfaced roads.

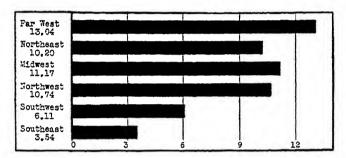


Fig. 82.—Regional summary of residence telephones per 100 population, 1932

### DISTRIBUTION OF TELEPHONES

The birth years of the telephone and of the American Library Association are the same: Alexander Graham Bell secured a patent for his invention in 1876, when Melvil Dewey and his colleagues were drafting the constitution which brought librarians into a united organization. On December 31, 1935, 17,424,000 commercial and residence telephones were knit together by 8,000,000 miles of telephone lines, and 76,000,000 calls, it is estimated, were completed daily. Table 70 and Figures 81 and 82 show how, in 1932, 11,089,946 residence telephones in the United States were distributed per 100 population in various states and regions. Except in two of the regions, the Southeast and Southwest, the differences among different states and

<sup>&</sup>lt;sup>3</sup> U.S. National Resources Committee, Research Committee on Urbanism ["A Study of Communication Facilities"] and ["A Study of Recreation"] (MSS in preparation).

<sup>&</sup>lt;sup>4</sup> U.S. National Resources Committee, Research Committee on Urbanism ["A Study of Communication Facilities"], Table 88.

regions in number of telephones available appear as comparatively slight. A comparison of Figure 81 with that of the library index for 1934 reveals that, in general, the regions which rank low in library service tend to rank low, also, in telephone service. The Midwest is exceptional in that it tends to rank higher in telephone service than in library development. The difference is especially notable in Iowa. Its bearing upon library use will be readily understood by librarians and patrons of those library systems in which the telephone and Western Union messengers are employed to expedite reference and other forms of library service. Obviously, the telephone cannot be used extensively as an adjunct to this service in eleven of the southeastern and southwestern states where but 5 per cent, or less, of the residences have such means of communication. Even if library service were available, there would still be lacking that combined use of telephone and of Western Union delivery service which is enjoyed by patrons of many urban libraries.

### DISTRIBUTION OF RADIOS

The first regular program which was broadcast by radio in the United States was given in San Francisco, in 1920, a bare eighteen years ago; and the first commercially sponsored program on a nation-wide basis was broadcast on New Year's Day in 1925.<sup>5</sup> In 1930, according to the U.S. Census Bureau, 12,-048,762, or 40.3 per cent of all families in the United States, owned one or more radios.<sup>6</sup> The number increased in 1932 to 16,679,253,<sup>7</sup> and on January 1, 1935, to 21, 455,799,<sup>8</sup> or 69.4 per cent of all families.

The possibilities are very real that the radio may be a serious

- <sup>5</sup> U.S. National Resources Committee, Research Committee on Urbanism ["A Study of Communication Facilities"] (MS).
- <sup>6</sup> U.S. Bureau of the Census, *Census: 1930*, *Population*, I (Washington: Government Printing Office, 1931), 10.
- <sup>7</sup> H. S. Hettinger, *A Decade of Radio Advertising* (Chicago: University of Chicago Press, 1933), p. 42.
- <sup>8</sup> Columbia Broadcasting Company, Lost and Found (New York: Columbia Broadcasting Company, 1935), p. 7.

TABLE 71\* PER CENT OF FAMILIES OWNING RADIOS, JANUARY 1, 1935

New York					
New York	State	RANK	Families Ow		
New Jersey. 2 885,884 86.8 1.43 Rhode Island 3 148,961 86.7 1.42 Massachusetts. 4 903,467 85 5 1.35 Connecticut 5 339,845 84 2 1.27 Pennsylvania. 6 1,913,349 83 7 1 23 Illinois. 7 1,647,283 81.6 1.10 Maryland 8 318,877 80 1 1 01 New Hampshire. 9 94,186 78 2 0 90 California 10 1,369,365 77 8 0.87 Oregon. 11 211,103 76 8 0.81 Washington. 12 333,236 76 7 0 80 Ohio. 13 1,336,547 76 3 0 78 Delaware. 14 45,898 75 9 0.75 Michigan. 15 919,946 74 1 0.64 Iowa. 16 459,988 75 9 0.75 Michigan. 17 84,293 71 3 0.47 Minnesota. 18 441,164 71 2 0.46 Nebraska. 19 244,593 70 1 0.40 Colorado. 20 186,598 68 9 0.32 Missouri 11 21 649,040 68 8 0.32 Indiana. 22 597,696 68 7 0.31 Maine. 23 136,840 68 1 0.27 Idaho. 24 74,284 68 0 0.27 Vermont. 25 61,274 67 9 0.26 Wisconsin 26 489,602 66 8 0.19 Kansas. 27 319,714 65 4 0.11 South Dakota. 28 103,342 63 0 0.26 Wisconsin 26 489,602 66 8 0.19 Kansas. 27 319,714 65 4 0.11 South Dakota. 31 16,370 60.9 0.26 Wisconsin 29 86,011 62 4 0.07 West Virginia. 30 239,227 61 6 0.12 North Dakota. 31 16,370 60.9 0.26 Wisconsin 32 84,138 57.5 0.037 Virginia. 33 301,894 56 8 0.41 Wyoming. 34 33,522 56 3 0.45 Louisiana. 35 258,420 51.3 0.75 Feras. 36 733,128 50.7 0.79 Teras. 36 733,128 50.7 0.79 Teras. 37 312,491 50.2 0.85 North Dakota. 39 291,595 49 5 0.86 New Mexico. 42 43,394 42 7 0.85 North Carolina 45 260,011 39 3 -1.49 North Carolina 45 142,706 38.3 -1.56 Alabama. 46 216,979 36 0 -1.70 Arkansas. 47 122,989 27 5 -2.22			Total	Per Cent	DEORE
New Jersey. 2 885,884 86.8 1.43 Rhode Island 3 148,961 86.7 1.42 Massachusetts. 4 903,467 85 5 1.35 Connecticut 5 339,845 84 2 1.27 Pennsylvania. 6 1,913,349 83 7 1 23 Illinois. 7 1,647,283 81.6 1.10 Maryland 8 318,877 80 1 1 01 New Hampshire. 9 94,186 78 2 0 90 California 10 1,369,365 77 8 0.87 Oregon. 11 211,103 76 8 0.81 Washington. 12 333,236 76 7 0 80 Ohio. 13 1,336,547 76 3 0 78 Delaware. 14 45,898 75 9 0.75 Michigan. 15 919,946 74 1 0.64 Iowa. 16 459,988 75 9 0.75 Michigan. 17 84,293 71 3 0.47 Minnesota. 18 441,164 71 2 0.46 Nebraska. 19 244,593 70 1 0.40 Colorado. 20 186,598 68 9 0.32 Missouri 11 21 649,040 68 8 0.32 Indiana. 22 597,696 68 7 0.31 Maine. 23 136,840 68 1 0.27 Idaho. 24 74,284 68 0 0.27 Vermont. 25 61,274 67 9 0.26 Wisconsin 26 489,602 66 8 0.19 Kansas. 27 319,714 65 4 0.11 South Dakota. 28 103,342 63 0 0.26 Wisconsin 26 489,602 66 8 0.19 Kansas. 27 319,714 65 4 0.11 South Dakota. 31 16,370 60.9 0.26 Wisconsin 29 86,011 62 4 0.07 West Virginia. 30 239,227 61 6 0.12 North Dakota. 31 16,370 60.9 0.26 Wisconsin 32 84,138 57.5 0.037 Virginia. 33 301,894 56 8 0.41 Wyoming. 34 33,522 56 3 0.45 Louisiana. 35 258,420 51.3 0.75 Feras. 36 733,128 50.7 0.79 Teras. 36 733,128 50.7 0.79 Teras. 37 312,491 50.2 0.85 North Dakota. 39 291,595 49 5 0.86 New Mexico. 42 43,394 42 7 0.85 North Carolina 45 260,011 39 3 -1.49 North Carolina 45 142,706 38.3 -1.56 Alabama. 46 216,979 36 0 -1.70 Arkansas. 47 122,989 27 5 -2.22	New York	,	2 020 050	0	7.60
Rhode Island		-			1
Massachusetts.         4         903,467         85 5         1.35           Connecticut         5         339,845         84 2         1.27           Pennsylvania.         6         1,913,349         83 7         1.23           Illinois.         7         1,647,283         81.6         1.10           Maryland         8         318,877         80 I         1.01           Mew Hampshire.         9         94,186         78 2         0.90           California         10         1,369,365         77 8         0.87           Oregon.         11         211,103         76 8         0.87           Oregon.         12         333,236         76 7         0.80           Ohio.         13         1,336,547         76 3         0.78           Delaware.         14         45,898         75 9         0.75           Michigan.         15         919,946         74 1         0.64           Iowa.         16         459,988         72.2         0.53           Utah.         17         84,293         71 3         0.47           Minnesota.         18         441,164         71 2         0.46 <t< td=""><td></td><td>1</td><td>1</td><td>1</td><td></td></t<>		1	1	1	
Connecticut 5 339,845 84 2 1.27 Pennsylvania. 6 1,913,349 83 7 1 23 Illinois. 7 1,647,283 81.6 1.10 Maryland 8 318,877 80 1 1 01 New Hampshire. 9 94,186 78 2 0 90 California 10 1,369,365 77 8 0.87 Oregon. 11 211,103 76 8 0.81 Washington. 12 333,236 76 7 0 80 Ohio. 13 1,356,547 76 3 0 78 Delaware. 14 45,898 75 9 0.75 Michigan. 15 919,946 74 1 0.64 Iowa. 16 459,988 72.2 0.53 Utah. 17 84,293 71 3 0.47 Minnesota. 18 441,164 71 2 0.46 Nebraska. 19 244,503 70 1 0.40 Colorado. 20 186,598 68 9 0.32 Missouri. 21 649,040 68 8 0.32 Indiana. 22 597,666 68 7 0.31 Maine. 23 136,840 68 1 0.27 Vermont. 25 61,274 67 9 0.26 Wisconsin 26 489,602 66 8 0.19 Kansas. 27 319,714 65 4 0.11 South Dakota. 28 103,342 63 0 -0.03 Montana. 29 86,011 62 4 -0.07 West Virginia. 30 239,227 61 6 -0.12 Nevada. 31 16,370 60.9 -0.16 North Dakota. 32 84,138 57.5 -0.37 Virginia. 33 32,927 61 6 -0.12 Nevada. 31 16,370 60.9 -0.16 North Dakota. 32 84,138 57.5 -0.37 Virginia. 33 33,128 50.7 -0.79 Texas. 36 733,128 50.7 -0.79 Texas. 37 748 7 -0.91 Texas. 36 733,128 50.7 -0.79 Texas. 37 748 7 -0.91 Texas. 37 748 7 -0.9		1			1
Pennsylvania.   6					
Illinois		5		, .	1
Maryland         8         318,877         80 I         I of           New Hampshire         9         94,186         78 2         0.90           California         10         1,369,365         77 8         0.87           Oregon         11         211,103         76 8         0.81           Washington         12         333,236         76 7         0.80           Ohio         13         1,336,547         76 3         0.78           Delaware         14         45,898         75 9         0.75           Michigan         15         919,946         74 1         0.64           Iowa         16         459,988         72.2         0.53           Utah         17         84,293         71 3         0.47           Minnesota         18         441,164         71 2         0.46           Nebraska         19         244,503         70 1         0.40           Colorado         20         186,598         68 9         0.32           Missouri         21         649,040         68 8         0.32           Indiana         22         597,696         68 7         0.31           Maine		}			1 -
New Hampshire.         9         94,186         78 2         0 90           California         10         1,369,365         77 8         0.87           Oregon.         11         211,103         76 8         0.81           Washington.         12         333,236         76 7         0 80           Ohio.         13         1,336,547         76 3         0 78           Delaware.         14         45,898         75 9         0.75           Michigan.         15         919,946         74 1         0.64           Iowa.         16         459,988         72.2         0.53           Utah.         17         84,293         71 3         0.47           Minnesota.         18         441,164         71 2         0.46           Nebraska.         19         244,503         70 1         0.40           Colorado.         20         186,598         68 9         0.32           Missouri.         21         649,040         68 8         0.32           Indiana.         22         597,696         68 7         0.31           Maine.         23         136,840         68 1         0.27           Vermont			1	1	i .
California         10         1,369,365         77 8         0.87           Oregon.         11         211,103         76 8         0.81           Washington.         12         333,236         76 7         0.80           Ohio.         13         1,336,547         76 3         0.78           Delaware.         14         45,898         75 9         0.75           Michigan.         15         919,946         74 1         0.64           Iowa.         16         459,988         72.2         0.53           Utah.         17         84,293         71 3         0.47           Minnesota.         18         441,164         71 2         0.46           Nebraska.         19         244,503         70 1         0.40           Missouri.         21         649,040         68 8         0.32           Indiana.         22         597,696         68 7         0.31           Maine.<					1
Oregon.         11         211,103         76 8         0.81           Washington.         12         333,236         76 7         0 80           Ohio.         13         1,336,547         76 3         0 78           Delaware.         14         45,898         75 9         0.75           Michigan.         15         919,946         74 1         0.64           Iowa.         16         459,988         72.2         0.53           Utah.         17         84,293         71 3         0.47           Minnesota.         18         441,164         71 2         0.46           Nebraska.         19         244,503         70 1         0.40           Colorado.         20         186,598         68 9         0.32           Missouri.         21         649,040         68 8         0.32           Indiana.         22         597,696         68 7         0.31           Maine.         23         136,840         68 1         0.27           Vermont.         25         61,274         67 9         0.26           Wisconsin         26         489,602         66 8         0.19           South Dakota <td></td> <td>,</td> <td></td> <td></td> <td>,</td>		,			,
Washington.       12       333,236       76 7       0 80         Ohio.       13       1,336,547       76 3       0 78         Delaware.       14       45,898       75 9       0.75         Michigan.       15       919,946       74 1       0.64         Iowa.       16       459,988       72.2       0.53         Utah.       17       84,293       71 3       0.47         Minnesota.       18       441,164       71 2       0.46         Nebraska.       19       244,503       70 1       0.40         Colorado.       20       186,598       68 9       0.32         Missouri.       21       649,040       68 8       0.32         Indiana.       22       597,696       68 7       0.31         Maine.       23       136,840       68 1       0.27         Vermont.       24       74,284       68 0       0.27         Vermont.       25       61,274       67 9       0.26         Wisconsin       26       489,602       66 8       0.19         Kansas.       27       319,714       65 4       0.11         South Dakota.       28 <td></td> <td></td> <td></td> <td></td> <td>1 '</td>					1 '
Ohio.         13         1,336,547         76 3         0 78           Delaware.         14         45,898         75 9         0.75           Michigan.         15         919,946         74 1         0.64           Iowa.         16         459,988         72.2         0.53           Utah.         17         84,293         71 3         0.47           Minnesota.         18         441,164         71 2         0.46           Nebraska.         19         244,503         70 1         0.40           Colorado.         20         186,598         68 9         0.32           Missouri.         21         649,040         68 8         0.32           Indiana.         22         597,696         68 7         0.31           Maine.         23         136,840         68 1         0.27           Vermont.         25         61,274         68 0         0.27           Vermont.         25         61,274         67 9         0.26           Wisconsin         26         489,602         66 8         0.19           Kansas.         27         319,714         65 4         0.11           South Dakota.	0, .	i			
Delaware.         14         45,898         75 9         0.75           Michigan.         15         919,946         74 1         0.64           Iowa.         16         459,988         72.2         0.53           Utah.         17         84,293         71 3         0.47           Minnesota.         18         441,164         71 2         0.46           Nebraska.         19         244,503         70 1         0.40           Colorado.         20         186,598         68 9         0.32           Missouri.         21         649,040         68 8         0.32           Indiana.         22         597,696         68 7         0.31           Maine.         23         136,840         68 1         0.27           Vermont.         25         61,274         67 9         0.26           Vermont.         25         61,274         67 9         0.26           Wisconsin         26         489,602         68 8         0.19           Kansas.         27         319,714         65 4         0.11           South Dakota         28         103,342         63 0         0.03           Montana.					1
Michigan         15         919,946         74 I         0.64           Iowa         16         459,988         72.2         0.53           Utah         17         84,293         71 3         0.47           Minnesota         18         441,164         71 2         0.46           Nebraska         19         244,503         70 1         0.40           Colorado         20         186,598         68 9         0.32           Missouri         21         649,040         68 8         0.32           Indiana         22         597,696         68 7         0.31           Maine         23         136,840         68 1         0.27           Idaho         24         74,284         68 0         0.27           Vermont         25         61,274         67 9         0.26           Wisconsin         26         489,602         66 8         0.19           Kansas         27         319,714         65 4         0.11           South Dakota         28         103,342         63 0         -0.03           Montana         29         86,011         62 4         -0.07           West Virginia         <					
Iowa         16         459,988         72.2         0.53           Utah         17         84,293         71 3         0.47           Minnesota         18         441,164         71 2         0.46           Nebraska         19         244,503         70 1         0.40           Colorado         20         186,598         68 9         0.32           Missouri         21         649,040         68 8         0.32           Indiana         22         597,696         68 7         0.31           Maine         23         136,840         68 1         0.27           Vermont         24         74,284         68 0         0.27           Vermont         25         61,274         67 9         0.26           Wisconsin         26         489,602         66 8         0.19           Kansas         27         319,714         65 4         0.11           South Dakota         28         103,342         63 0         -0.03           Montana         29         86,011         62 4         -0.07           Nevs Virginia         30         239,227         61 6         -0.12           Nevada			1		1 5-
Utah         17         84,293         71 3         0.47           Minnesota         18         441,164         71 2         0 46           Nebraska         19         244,593         70 1         0 40           Colorado         20         186,598         68 9         0.32           Missouri         21         649,040         68 8         0.32           Indiana         22         597,696         68 7         0.31           Maine         23         136,840         68 1         0.27           Idaho         24         74,284         68 0         0.27           Vermont         25         61,274         67 9         0.26           Wisconsin         26         489,602         66 8         0.19           Kansas         27         319,714         65 4         0.11           South Dakota         28         103,342         63 0         -0.03           Montana         29         86,011         62 4         -0.07           West Virginia         30         239,227         61 6         -0.12           North Dakota         31         16,370         60.9         -0.16           North Dakota </td <td></td> <td></td> <td>1</td> <td>74 I</td> <td>0.64</td>			1	74 I	0.64
Minnesota.       18       441,164       71 2       0 46         Nebraska.       19       244,503       70 1       0 40         Colorado.       20       186,598       68 9       0.32         Missouri.       21       649,040       68 8       0.32         Indiana.       22       597,696       68 7       0.31         Maine.       23       136,840       68 1       0.27         Idaho.       24       74,284       68 0       0.27         Vermont.       25       61,274       67 9       0.26         Wisconsin       26       489,602       66 8       0.19         Kansas.       27       319,714       65 4       0.11         South Dakota       28       103,342       63 0       -0.03         Montana.       29       86,011       62 4       -0.07         West Virginia.       30       239,227       61 6       -0.12         Nevada.       31       16,370       60.9       -0.16         North Dakota       32       84,138       57.5       -0.37         Virginia.       33       301,894       56 8       -0.41         Wyoming.	Iowa		1	72.2	
Nebraska         19         244,503         70 I         0 40           Colorado         20         186,598         68 9         0.32           Missouri         21         649,040         68 8         0.32           Indiana         22         597,696         68 7         0.31           Maine         23         136,840         68 1         0.27           Idaho         24         74,284         68 0         0.27           Vermont         25         61,274         67 9         0.26           Wisconsin         26         489,602         66 8         0.19           Kansas         27         319,714         65 4         0.11           South Dakota         28         103,342         63 0         -0.03           Montana         29         86,011         62 4         -0.07           West Virginia         30         239,227         61 6         -0.12           Nevada         31         16,370         60.9         -0.16           North Dakota         32         84,138         57.5         -0.37           Virginia         33         301,894         56 8         -0.41           Wyoming <td></td> <td></td> <td>1</td> <td></td> <td></td>			1		
Colorado         20         186,598         68 9         0.32           Missouri         21         649,040         68 8         0.32           Indiana         22         597,696         68 7         0.31           Maine         23         136,840         68 1         0.27           Idaho         24         74,284         68 0         0.27           Vermont         25         61,274         67 9         0.26           Wisconsin         26         489,602         66 8         0.19           Kansas         27         319,714         65 4         0.11           South Dakota         28         103,342         63 0         -0.03           Montana         29         86,011         62 4         -0.07           West Virginia         30         239,227         61 6         -0.12           Nevada         31         16,370         60.9         -0.16           North Dakota         32         84,138         57.5         -0.37           Virginia         33         301,894         56 8         -0.41           Wyoming         34         33,522         56 3         -0.45           Louisiana <td></td> <td>18</td> <td>441,164</td> <td>71 2</td> <td>0 46</td>		18	441,164	71 2	0 46
Missouri       21       649,040       68       8       0.32         Indiana       22       597,696       68       7       0.31         Maine       23       136,840       68       1       0.27         Idaho       24       74,284       68       0       0.27         Vermont       25       61,274       67       9       0.26         Wisconsin       26       489,602       66       8       0.19         Kansas       27       319,714       65       4       0.11         South Dakota       28       103,342       63       0       -0.03         Montana       29       86,011       62       4       -0.07         West Virginia       30       239,227       61       6       -0.12         Nevada       31       16,370       60.9       -0.16         North Dakota       32       84,138       57.5       -0.37         Virginia       33       301,894       56       8       -0.41         Wyoming       34       33,522       56       3       -0.45         Louisiana       35       258,420       51.3       -0.75	- 1	19	244,503	70 I	0 40
Indiana         22         597,696         68 7         0.31           Maine         23         136,840         68 1         0.27           Idaho         24         74,284         68 0         0.27           Vermont         25         61,274         67 9         0.26           Wisconsin         26         489,602         66 8         0.19           Kansas         27         319,714         65 4         0.11           South Dakota         28         103,342         63 0         -0.03           Montana         29         86,011         62 4         -0.07           West Virginia         30         239,227         61 6         -0.12           Nevada         31         16,370         60.9         -0.16           North Dakota         32         84,138         57.5         -0.37           Virginia         33         301,894         56 8         -0.41           Wyoming         34         33,522         56 3         -0.45           Louisiana         35         258,420         51.3         -0.75           Texas         36         733,128         50.7         -0.79           Tennessee <td></td> <td>20</td> <td>186,598</td> <td></td> <td>0.32</td>		20	186,598		0.32
Maine       23       136,840       68 I       0.27         Idaho       24       74,284       68 0       0.27         Vermont       25       61,274       67 9       0.26         Wisconsin       26       489,602       66 8       0.19         Kansas       27       319,714       65 4       0.11         South Dakota       28       103,342       63 0       -0.03         Montana       29       86,011       62 4       -0.07         West Virginia       30       239,227       61 6       -0.12         Nevada       31       16,370       60.9       -0.16         North Dakota       32       84,138       57.5       -0.37         Virginia       33       301,894       56 8       -0.41         Wyoming       34       33,522       56 3       -0.45         Louisiana       35       258,420       51.3       -0.75         Texas       36       733,128       50.7       -0.79         Tennessee       37       312,491       50.2       -0.82         Florida       38       200,674       49 7       -0.85         Oklahoma       39<		21	649,040		0.32
Idaho.       24       74,284       68 0       0.27         Vermont.       25       61,274       67 9       0.26         Wisconsin       26       489,602       66 8       0.19         Kansas.       27       319,714       65 4       0.11         South Dakota       28       103,342       63 0       -0.03         Montana.       29       86,011       62 4       -0.07         West Virginia       30       239,227       61 6       -0.12         Nevada.       31       16,370       60.9       -0.16         North Dakota       32       84,138       57.5       -0.37         Virginia.       33       301,894       56 8       -0.41         Wyoming.       34       33,522       56 3       -0.45         Louisiana.       35       258,420       51.3       -0.75         Texas.       36       733,128       50.7       -0.79         Tennessee       37       312,491       50.2       -0.82         Florida.       38       200,674       49 7       -0.85         Oklahoma       39       291,595       49 5       -0.86         Kentucky		22			0.31
Vermont.         25         61,274         67 9         0.26           Wisconsin         26         489,602         66 8         0.19           Kansas         27         319,714         65 4         0.11           South Dakota         28         103,342         63 0         -0.03           Montana         29         86,011         62 4         -0.07           West Virginia         30         239,227         61 6         -0.12           Nevada         31         16,370         60.9         -0.16           North Dakota         32         84,138         57.5         -0.37           Virginia         33         301,894         56 8         -0.41           Wyoming         34         33,522         56 3         -0.45           Louisiana         35         258,420         51.3         -0.75           Texas         36         733,128         50.7         -0.79           Tennessee         37         312,491         50.2         -0.82           Florida         38         206,674         49 7         -0.85           Oklahoma         39         291,595         49 5         -0.86	Maine	23	136,840		0.27
Wisconsin       26       489,602       66 8       0.19         Kansas       27       319,714       65 4       0.11         South Dakota       28       103,342       63 0       -0.03         Montana       29       86,011       62 4       -0.07         West Virginia       30       239,227       61 6       -0.12         Nevada       31       16,370       60.9       -0.16         North Dakota       32       84,138       57.5       -0.37         Virginia       33       301,894       56 8       -0.41         Wyoming       34       33,522       56 3       -0.45         Louisiana       35       258,420       51.3       -0.75         Texas       36       733,128       50.7       -0.79         Tennessee       37       312,491       50.2       -0.82         Florida       38       200,674       49 7       -0.85         Oklahoma       39       291,595       49 5       -0.86         Kentucky       40       300,877       48 7       -0.91         Arizona       41       53,518       48 0       -0.96         New Mexico		24	74,284		0.27
Kansas.       27       319,714       65 4       0.11         South Dakota       28       103,342       63 0       -0.03         Montana       29       86,011       62 4       -0.07         West Virginia       30       239,227       61 6       -0.12         Nevada       31       16,370       60.9       -0.16         North Dakota       32       84,138       57.5       -0.37         Virginia       33       301,894       56 8       -0.41         Wyoming       34       33,522       56 3       -0.45         Louisiana       35       258,420       51.3       -0.75         Texas       36       733,128       50.7       -0.79         Tennessee       37       312,491       50.2       -0.82         Florida       38       20,674       49 7       -0.85         Oklahoma       39       291,595       49 5       -0.86         Kentucky       40       300,877       48 7       -0.91         Arizona       41       53,518       48 0       -0.96         New Mexico       42       43,394       42 7       -1.28         North Carolina </td <td></td> <td></td> <td>61,274</td> <td>67 9</td> <td>0.26</td>			61,274	67 9	0.26
South Dakota         28         103,342         63 0         -0.03           Montana         29         86,011         62 4         -0.07           West Virginia         30         239,227         61 6         -0.12           Nevada         31         16,370         60.9         -0.16           North Dakota         32         84,138         57.5         -0.37           Virginia         33         301,894         56 8         -0.41           Wyoming         34         33,522         56 3         -0.45           Louisiana         35         258,420         51.3         -0.75           Texas         36         733,128         50.7         -0.79           Tennessee         37         312,491         50.2         -0.82           Florida         38         200,674         49.7         -0.85           Oklahoma         39         291,595         49.5         -0.86           Kentucky         40         300,877         48.7         -0.91           Arizona         41         53,518         48.0         -0.96           New Mexico         42         43,394         42.7         -1.28		26	489,602	66 8	0.19
Montana       29       86,011       62 4       -0.07         West Virginia       30       239,227       61 6       -0.12         Nevada       31       16,370       60.9       -0.16         North Dakota       32       84,138       57.5       -0.37         Virginia       33       301,894       56 8       -0.41         Wyoming       34       33,522       56 3       -0.45         Louisiana       35       258,420       51.3       -0.75         Texas       36       733,128       50.7       -0.79         Tennessee       37       312,491       50.2       -0.82         Florida       38       20,674       49 7       -0.85         Oklahoma       39       291,595       49 5       -0.86         Kentucky       40       30,877       48 7       -0.91         Arizona       41       53,518       48 0       -0.96         New Mexico       42       43,394       42 7       -1.28         North Carolina       43       266,924       39 6       -1.47         Georgia       44       260,011       39 3       -1.49         South Carolina		27	319,714	65 4	0.11
West Virginia       30       239,227       61 6       -0.12         Nevada       31       16,370       60.9       -0.16         North Dakota       32       84,138       57.5       -0.37         Virginia       33       301,894       56 8       -0.41         Wyoming       34       33,522       56 3       -0.45         Louisiana       35       258,420       51.3       -0.75         Texas       36       733,128       50.7       -0.79         Tennessee       37       312,491       50.2       -0.82         Florida       38       20,674       49 7       -0.85         Oklahoma       39       291,595       49 5       -0.86         Kentucky       40       30,877       48 7       -0.91         Arizona       41       53,518       48 0       -0.96         New Mexico       42       43,394       42 7       -1.28         North Carolina       43       266,924       39 6       -1.47         Georgia       44       260,011       39 3       -1.49         South Carolina       45       142,706       38.3       -1.56         Alabam		28	103,342	63 0	-0.03
Nevada.       31       16,370       60.9       -0.16         North Dakota       32       84,138       57.5       -0.37         Virginia       33       301,894       56 8       -0.41         Wyoming       34       33,522       56 3       -0.45         Louisiana       35       258,420       51.3       -0.75         Texas.       36       733,128       50.7       -0.79         Tennessee       37       312,491       50.2       -0.82         Florida       38       200,674       49 7       -0.85         Oklahoma       39       291,595       49 5       -0.86         Kentucky       40       300,877       48 7       -0.91         Arizona       41       53,518       48 0       -0.96         New Mexico       42       43,394       42 7       -1.28         North Carolina       43       266,924       39 6       -1.47         Georgia       44       260,011       39 3       -1.49         South Carolina       45       142,706       38.3       -1.56         Alabama       46       216,979       36 0       -1.70         Arkansas		29	86,011	62 4	-0.07
North Dakota         32         84,138         57.5         -0.37           Virginia         33         301,894         56.8         -0.41           Wyoming         34         33,522         56.3         -0.45           Louisiana         35         258,420         51.3         -0.75           Texas         36         733,128         50.7         -0.79           Tennessee         37         312,491         50.2         -0.82           Florida         38         200,674         49.7         -0.85           Oklahoma         39         291,595         49.5         -0.86           Kentucky         40         300,877         48.7         -0.91           Arizona         41         53,518         48.0         -0.96           New Mexico         42         43,394         42.7         -1.28           North Carolina         43         266,924         39.6         -1.47           Georgia         44         260,011         39.3         -1.49           South Carolina         45         142,706         38.3         -1.56           Alabama         46         216,979         36.0         -1.70		30	239,227	61 6	-0.12
Virginia         33         301,894         56 8         -0.41           Wyoming         34         33,522         56 3         -0.45           Louisiana         35         258,420         51.3         -0.75           Texas         36         733,128         50.7         -0.79           Tennessee         37         312,491         50.2         -0.82           Florida         38         200,674         49 7         -0.85           Oklahoma         39         291,595         49 5         -0.86           Kentucky         40         300,877         48 7         -0.91           Arizona         41         53,518         48 0         -0.96           New Mexico         42         43,394         42 7         -1.28           North Carolina         43         266,924         39 6         -1.47           Georgia         44         260,011         39 3         -1.49           South Carolina         45         142,706         38.3         -1.56           Alabama         46         216,979         36 0         -1.70           Arkansas         47         122,989         27 5         -2.22		31	16,370	60.9	-0.16
Wyoming.       34       33,522       56 3       -0.45         Louisiana.       35       258,420       51.3       -0.75         Texas.       36       733,128       50.7       -0.79         Tennessee       37       312,491       50.2       -0.82         Florida.       38       200,674       49 7       -0.85         Oklahoma.       39       291,595       49 5       -0.86         Kentucky.       40       300,877       48 7       -0.91         Arizona.       41       53,518       48 0       -0.96         New Mexico.       42       43,394       42 7       -1.28         North Carolina.       43       266,924       39 6       -1.47         Georgia.       44       260,011       39 3       -1.49         South Carolina.       45       142,706       38.3       -1.56         Alabama.       46       216,979       36 0       -1.70         Arkansas.       47       122,989       27 5       -2.22		32	84,138	57.5	-0.37
Louisiana.       35       258,420       51.3       -0.75         Texas.       36       733,128       50.7       -0.79         Tennessee       37       312,491       50.2       -0.82         Florida.       38       200,674       49.7       -0.85         Oklahoma.       39       291,595       49.5       -0.86         Kentucky.       40       300,877       48.7       -0.91         Arizona.       41       53,518       48.0       -0.96         New Mexico.       42       43,394       42.7       -1.28         North Carolina.       43       266,924       39.6       -1.47         Georgia.       44       260,011       39.3       -1.49         South Carolina.       45       142,706       38.3       -1.56         Alabama.       46       216,979       36.0       -1.70         Arkansas.       47       122,989       27.5       -2.22	Virginia	33	301,894	56 8	-0.41
Texas.     36     733,128     50.7     -0.79       Tennessee     37     312,491     50.2     -0.82       Florida.     38     200,674     49 7     -0.85       Oklahoma.     39     291,595     49 5     -0.86       Kentucky.     40     300,877     48 7     -0.91       Arizona.     41     53,518     48 0     -0.96       New Mexico.     42     43,394     42 7     -1.28       North Carolina.     43     266,924     39 6     -1.47       Georgia.     44     260,011     39 3     -1.47       South Carolina.     45     142,706     38.3     -1.56       Alabama.     46     216,979     36 0     -1.70       Arkansas.     47     122,989     27 5     -2.22	Wyoming	34	33,522	56 g	-0.45
Tennessee     37     312,491     50.2     -0.82       Florida.     38     200,674     49 7     -0.85       Oklahoma.     39     291,595     49 5     -0.86       Kentucky.     40     300,877     48 7     -0.91       Arizona.     41     53,518     48 0     -0.96       New Mexico.     42     43,394     42 7     -1.28       North Carolina.     43     266,924     39 6     -1.47       Georgia.     44     260,011     39 3     -1.49       South Carolina.     45     142,766     38.3     -1.56       Alabama.     46     216,979     36 0     -1.70       Arkansas.     47     122,989     27 5     -2.22		35	258,420	51.3	-o 75
Florida.       38       200,674       49 7       -0.85         Oklahoma.       39       291,595       49 5       -0.86         Kentucky.       40       300,877       48 7       -0.91         Arizona.       41       53,518       48 0       -0.96         New Mexico.       42       43,394       42 7       -1.28         North Carolina.       43       266,924       39 6       -1.47         Georgia.       44       260,011       39 3       -1.49         South Carolina.       45       142,706       38.3       -1.56         Alabama.       46       216,979       36 0       -1.70         Arkansas.       47       122,989       27 5       -2.22	Texas	36	733,128	50.7	-0.79
Oklahoma     39     291,595     49 5     -0.86       Kentucky     40     300,877     48 7     -0.91       Arizona     41     53,518     48 0     -0.96       New Mexico     42     43,394     42 7     -1.28       North Carolina     43     266,924     39 6     -1.47       Georgia     44     260,011     39 3     -1.49       South Carolina     45     142,706     38 3     -1.56       Alabama     46     216,979     36 0     -1.70       Arkansas     47     122,989     27 5     -2.22		37	312,491	50.2	-0.82
Kentucky     40     300,877     48 7     -0.91       Arizona     41     53,518     48 0     -0.96       New Mexico     42     43,394     42 7     -1.28       North Carolina     43     266,924     39 6     -1.47       Georgia     44     260,011     39 3     -1.49       South Carolina     45     142,766     38.3     -1.56       Alabama     46     216,979     36 0     -1.70       Arkansas     47     122,989     27 5     -2.22	Florida	38	200,674	49 7	-0.85
Arizona	Oklahoma	39	291,595	49 5	-0.86
Arizona	Kentucky	40	300,877	48 7	-0.91
North Carolina     43     266,924     39 6     -1.47       Georgia     44     260,011     39 3     -1.49       South Carolina     45     142,706     38.3     -1.56       Alabama     46     216,979     36 0     -1.70       Arkansas     47     122,989     27 5     -2.22	Arizona	41	53,518	480	-0.96
North Carolina     43     266,924     39 6     -1.47       Georgia     44     260,011     39 3     -1.49       South Carolina     45     142,706     38.3     -1.56       Alabama     46     216,979     36 0     -1.70       Arkansas     47     122,989     27 5     -2.22	New Mexico	42		42 7	-1.28
Georgia     44     260,011     39 3     -1.49       South Carolina     45     142,706     38.3     -1.56       Alabama     46     216,979     36 0     -1.70       Arkansas     47     122,989     27 5     -2.22	North Carolina	43	266,924		-I.47
South Carolina.     45     142,706     38.3     -1.56       Alabama.     46     216,979     36 0     -1.70       Arkansas.     47     122,989     27 5     -2.22	Georgia		260,011		
Alabama					-1.56
Arkansas	Alabama				_
Mississippi		47			

<sup>\*</sup>Source: Columbia Broadcasting Co., Lost and Found (N.Y.: Columbia Broadcasting Co., 1935), p. 7. Compilation figures in this table are based on an estimated figure for population of 126,425,000; for families, 30,919,300; for radio homes, 21,455,799.

Mean per cent (based on means of the 48 states), 63.65; standard deviation, 16.21; U.S. total families owning radios, 21,455,799; U.S. per cent families owning radios (including District of Columbia), 69.41.

competitor of the library for the use of leisure time devoted to recreational purposes, or even for information concerning certain current questions. The person who labors physically during the day may find it much easier to drop into a chair, turn on the radio, and "just listen" than to read a book—an act that in itself proves difficult for that part of the population which has not acquired a reading skill beyond that imparted by the elementary school. The appeal of the radio to persons of all ages and economic status is attested by the fact that millions of the 78,000,000 potential listeners actually listen in daily, many of them spending from a few minutes to several hours in that way.9 Because there are in the United States 250,000 or more schools, 210,000 churches, and numerous other educational, religious, and special agencies which are potential users of educational programs, the development of educational broadcasting may also tend to increase the time devoted to it in the future, particularly if television and the talking book can be developed in such way that the eye as well as the ear may be employed in the educational process. Nevertheless, while it is true that the radio is a competitor in the ways indicated, there is abundant evidence that the library may employ the radio in extending information about books and thereby stimulate interest in reading and the use of library materials, generally.

Since the family rather than the individual affords the best unit for indicating the availability of the radio, the per cent of families owning radios is used to show distribution by states and regions. The data in Table 71 and Figures 83 and 84 are for January 1, 1935. They signify that the per cent of families having radios increased from 40.3, in 1930, to 69.4 in 1935, in spite of the depression. If these data are analyzed on the basis of urban and rural ownership, it is found that a higher per cent of families living in cities have radios than do those living in the country. The range for cities, by sizes, is: cities having over 250,000 population, 93.4 per cent; 25,000 to 250,000, 91.7 per

<sup>&</sup>lt;sup>9</sup> Hadley Cantril and G. W. Allport, *The Psychology of Radio* (New York and London: Harper and Brothers, 1935), p. 87.

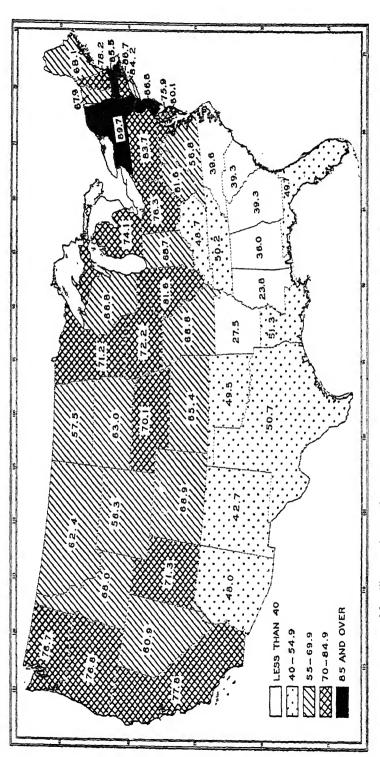


Fig. 83.—Per cent of families owning radios, January 1, 1935. Source: Same as for Table 71. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

cent; 1,000 to 25,000, 88.2 per cent; towns under 1,000, 76.8 per cent; rural farms, 33.9 per cent. The average figure for the United States, including urban and rural population, is 69.4. The effect of income upon ownership is also seen in the following range: over \$10,000, 90 per cent; \$5,000 to \$10,000, 85 per cent; \$3,000 to \$5,000, 79 per cent; \$2,000 to \$3,000, 65 per cent; under \$1,000, 52 per cent. The regional differences, however, are not so great as those in library service; e.g., the Northeast ranks 84.7 per cent, approximately twice as high as the Southeast, 42.2 per cent, in radio ownership, whereas the average index of library service in the Northeast is 0.58 to the South-

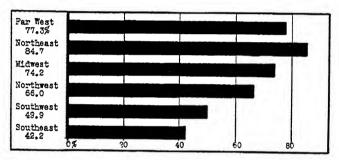


Fig. 84.—Regional summary of per cent of families owning radios, January 1, 1935.

east's-1.04. The lack of electricity accounts in part for the difference between urban and rural ownership, although wealth, to urbanization, and distance from broadcasting stations are doubtless contributing causes. Climatic conditions which produce static in the regions of the Southeast and the Southwest may also affect use adversely.

## RADIO SERVICE TO FARMS

To offset, as far as possible, the limitations of radio use in rural areas, the U.S. Department of Agriculture has provided a number of syndicated broadcasting programs for farm homes.

<sup>10</sup> According to the analysis made by Mr. G. F. Purdy, in his unpublished doctoral dissertation, "Public Library Service in the Middle West" (Graduate Library School, University of Chicago, 1936), pp. 57–73, wealth appeared to be the basic factor underlying the apparent urban-rural disparity. That is, when wealth was held constant, the urban-rural difference largely disappeared.

TABLE 72\* MOTION PICTURE RECEIPTS PER CAPITA, 1933

New York California . Nevada	RANK	PICTURE THEATERS	Total (in		STANDARD
California.	I		thousands)	Per Capita	Score
		849	\$90,000	\$7 15	3.05
Nevada	2	618	34,296	6 04	2 29
	3	19	474	5 21	1.72
Massachusetts	4	280	21,833	5 14	1.67
Connecticut.	5	140	7,649	4 76	1 41
New Jersey.	6	236	19,154	4 74	I 40
Rhode Island	7	35	3,171	4 61	1 31
Washington	8	219	6,907	4 42	1 18
Illinois	9	550	32,964	4 32	1 11
Delaware	10	23	940	3 94	0 85
Maryland	11	145	6,344	3 89	0 82
Wyoming .	12	37	873	3 87	0 81
Pennsylvania	13	734	30,539	3 17	0 33
Ohio	14	554	20,686	3 11	0 29
Oregon	15	115	2,901	3 04	0 24
Minnesota	16	314	7,523	2 93	0 16
Michigan	17	403	14,039	2 90	0 14
Montana	18	84	1,536	2 86	0 12
New Hampshire	19	47	1,322	2 84	0 10
Missouri	20	314	9,628	2 65	-0 03
Arizona.	21	32	1,101	2 53	-0 11
Colorado	22	122	2,572	2 48	-0 14
Kansas.	23	254	4,564	2 43	-o 18
Indiana	-3 24	296	7,448	2 30	-0 27
Iowa	25	316	5,556	2 25	-0.30
Wisconsin	25	303	6,601	2 25	-0 30
Utah	27	303 74	1,126	2 22	-0 32
Louisiana	28	151	4,638	2 21	-0 33
Texas	29	512	12,772	2 19	-0.34
Idaho	30	70	954	2 14	-0.34 -0.38
Nebraska	31	239	2,798	2 03	-0.45
Oklahoma	32	254	4,409	1 84	-0.58
West Virginia	33	155	3,146	1 82	-0.59
South Dakota	33 34	115	I,24I	1 79	-0.61
Virginia		159	4,129	1 79	-o 68
North Dakota	35 36	101	1,083	1.59	-0.75
Maine			1,003	1.53	-0.79
Vermont	37	74		I 5I	-0.81
	38	32	542	- 1	-0.81 -0.83
Kentucky	39	I 54	3,875	I 48	-0.87
North Carolina	40	156	4,102	1.41	-0.07 -0.96
	4I	183	4,095	1.29	-0.90 -1 02
Florida	42	93	1,744	1.19	-1 02 -1.04
	43	30	497	1.17	-1.04 -1.11
Tennessee	44	124	2,777		-1.11 -1 20
South Carolina	45	77	1,636	0.94	
Arkansas	46	110	1,472	0.79	-1.30
Alabama	47	126	1,816	0.69	-1.37
Mississippi	48	92	1,254	0 62	-1.41

\*Source: U.S. Bur. Census, Census of American Business: 1033, Services, Amusements, and Hotels (Wash.: Govt. Print. Off., 1935), I, Table 41, p. 27.

Mean receipts per capita (based on means of the 48 states), \$2.69, standard deviation, \$1.46; U.S. total motion picture theaters, 10,143; U.S. total receipts (in thousands), \$406,542, U.S. receipts per capita (including District of Columbia), \$3.31.

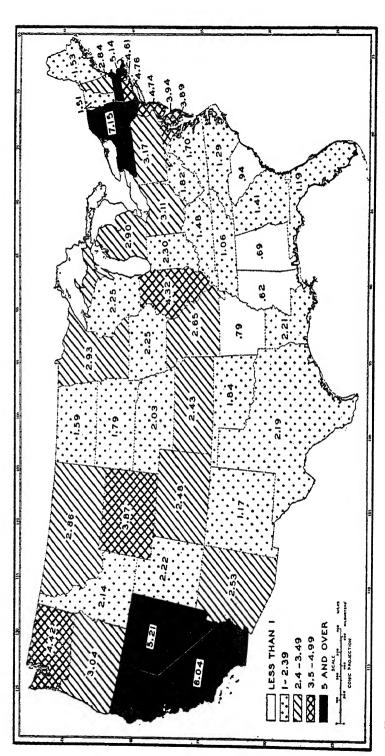


Fig. 85.—Motion picture receipts per capita, 1933. Source: Same as for Table 72. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)
The figures in this map are expressed in terms of dollars.

Three of these are widespread in their coverage. "Farm Flashes" (daily seven-minute reports on results of research and developments in the federal program of direct assistance to farm people) is offered to 280 radio stations; "Housekeepers' Chats" (daily seven-minute reports for homemakers) is offered to 290 stations; and "Market News" (a reporting service on prices, etc.) is offered to 150 stations. All of these services are supplemented by special broadcasts from 14 of the broadcasting stations of land-grant colleges.

### DISTRIBUTION OF MOTION PICTURES

The radio, as has just been shown, is a scant eighteen years of age. The moving picture, while double the radio's age, is still a product of the twentieth century and is only approximately

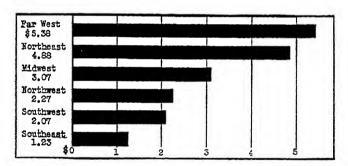


Fig. 86.—Regional summary of motion picture receipts per capita, 1933

a third as old as the public library. In the brief period of three and one-half decades, however, it has become one of America's leading commercial enterprises, its use as a nation-wide news service has been signally demonstrated, and its right to be first in the hearts of Americans as an agency for the provision of entertainment has been universally acclaimed. In 1930, it was supposed to draw a weekly attendance of 110,000,000-115,-000,000, and in 1936, after dropping to 60,000,000 in the worst years of the depression, it was again drawing an attendance

TABLE 73\*
Passenger Automobiles per 100 Population, 1932

		Passenger A	<b>S</b> -	
State	Rank	Total	Per 100 Population	Standard Score
California	I	1,738,385	30 6	2.41
Nevada	2	25,035	27.5	1.85
Oregon	3	236,405	24 8	1 36
Colorado	4	255,854	24 7	I 34
Iowa	5	606,523	24.5	1.31
Washington	6	381,490	24 4	1.29
Nebraska	7	322,347	23 4	1.11
Kansas	8	432,610	23.0	1.04
Minnesota	9	581,905	22.7	0 98
Ohio	10	1,420,550	21.4	0 75
Indiana	11	675,108	20 8	0.64
Michigan	12	1,000,169	20 7	0 62
South Dakota	13	142,552	20 6	0.60
Wyoming	14	46,330	20.5	0.58
Wisconsin	15	587,906	20.0	0.49
Vermont	16	69,230	19 3	0 37
North Dakota	17	130,660	I9 2	0.35
New Hampshire	18	88,141	18 9	0.29
Arizona	19	80,099	18 4	0.21
Idaho	19	81,993	18 4	0.21
Delaware	21	43,441	18 2	0.17
Connecticut	22	289,660	18 0	
New Jersey	22	726,201	18 0	0.13
Maryland	24	286,583	17 6	0.13
Illinois	25	1,311,783	17.2	-0.01
Maine	25 25	136,774	•	ł
Texas	25 25		17.2	-0.01
Missouri	25 28	1,001,675	17.2	-0.01
Florida	=	618,195	17 0	-0.05
D1 1 71 1	29	248,517	16 9	-0.07
3.5	30	114,950	16.7	-0.10
Montana	31	88,647	16.5	-0.14
T7. 1	32	698,358	16.4	-0.16
0111	32	83,089	16.4	, <b>—</b> 0.16
\	34	379,599	15.8	-0.25
TO 1 '	35	1,931,384	15.3	—o.36
37 36 .	36	1,448,978	15.0	-0 41
	37	61,720	14.6	-0.48
Virginia	38	308,806	12.8	-o.81
West Virginia.	39	193,232	11.2	-1.10
North Carolina	40	328,5∞	10.4	-I.24
Tennessee	<b>4</b> I	267,279	10.2	— I . 28
Kentucky	42	260,959	10.0	-1.31
Louisiana	43	198,787	9-5	—I.4I
South Carolina	44	157,453	9.1	—I 48
Georgia	45	245,666	8.4	—1.6o
Alabama	46	194,237	7.3	<del>-</del> 1.80
Arkansas	47	112,587	6.I	-2.02
	48	120,180	6.0	-2.04

<sup>\*</sup> Source: "International Yearbook Number," Editor and Publisher, LXVI (January 27, 1934), 205.

Mean per 100 population (based on means of the 48 states), 17.27; standard deviation, 5.53; U.S. total, 20,903,422; U.S. passenger automobiles per 100 population (including District of Columbia), 17.03.

TABLE 74\*
Per Cent of Farms on Hard-Surfaced Roads, 1929

STATE  Indiana. Ohio Oregon Washington New Jersey. Michigan	I 2 3 4 5 6 7 8 9	Total  139,033 154,668 36,035 45,842 15,334 96,502 14,436	76 6 70 5 65 3 64.7 60 4 57 0	2 36 2 04 1 76 1 72
Ohio Oregon Washington New Jersey. Michigan	2 3 4 5 6 7 8	154,668 36,035 45,842 15,334 96,502	70 5 65 3 64.7 60 4	2 04 1 76 1 72
Oregon Washington New Jersey. Michigan	3 4 5 6 7 8	36,035 45,842 15,334 96,502	65 3 64.7 60 4	1 76 1 72
Washington New Jersey . Michigan	4 5 6 7 8	36,035 45,842 15,334 96,502	64.7 60 4	1 72
New Jersey. Michigan	5 6 7 8	15,334 96,502	64.7 60 4	
Michigan	5 6 7 8	15,334 96,502		
	7 8	96,502		1.49
· · · · · · · · · · · · · · · · · · ·	8			1 31
Massachusetts	8		56 4	1 28
Wisconsin		102,390	56 3	1 27
Rhode Island	4 1	1,679	50.5	0 96
California .	10	67,366	49 7	0 92
Utah	11	12,671	46 7	0 76
New York	12	74,410	46 6	0 75
Minnesota .	13	79,773	43.I	0 56
Vermont	-3 I4	10,607	42 6	0 54
Maine	15	15,996	41.0	0 45
Idaho	16	16,808	40.3	0 41
Maryland	17	17,260	40.0	0 40
Connecticut.	17	6,886	40 0	0 40
New Hampshire	19	5,834	39 I	0 35
Delaware	20	3,650	37 6	0 27
	21			0 21
	21 22	114,177	36 5	
Louisiana		55,326	34 3	0 09
	23	80,290	32 7	0 00
Illinois	24	68,347	31 9	-0 04
Kentucky	25	76,939	31.2	-o o8
Pennsylvania	26	52,762	30 6	-0 11
Iowa	27	56,837	26.4	-o 33
Colorado	28	15,279	25 5	-o 38
Florida	29	13,986	<del>2</del> 3.7	-0 <sub>4</sub> 8
Arizona	30	3,171	22.4	-0 55
Virginia	31	36,069	21.1	-0.62
Missouri	32	51,562	20 I	-0.67
Nevada	33	655	190	<b>−</b> 0 73
Alabama	34	47,730	18.5	-o 76
West Virginia	35	14,362	17.4	-0 82
Arkansas	36	41,858	17 3	-0.82
Texas	37	77,267	15 6	-0 9I
North Carolina	38	40,232	I4 4	-o 98
South Dakota	39	11,431	13 7	-I 02
New Mexico	40	3,951	12 6	-1.07
Nebraska	<b>4</b> I	16,216	12.5	-1 08
Montana	42	5,773	12.2	-1 10
Kansas	43	18,937	11.4	-1.14
Wyoming	· 44	1,522	9.5	-I 24
South Carolina	45	12,832	8.1	-1 32
Georgia	46	18,768	7.3	—I 36
Oklahoma	47	14,529	7.1	-I 37
North Dakota.	48	5,219	6.7	-1 39

<sup>\*</sup> Source: U.S. Census, 1930, Agriculture (Wash.: Govt. Print. Off., 1932), II, Part 1, 57 ff.

Mean per cent (based on means of the 48 states), 32.6; standard deviation, 18.60; U.S. total, 1,873,295;
U.S. per cent of farms on hard-surfaced roads (including District of Columbia), 29.79.

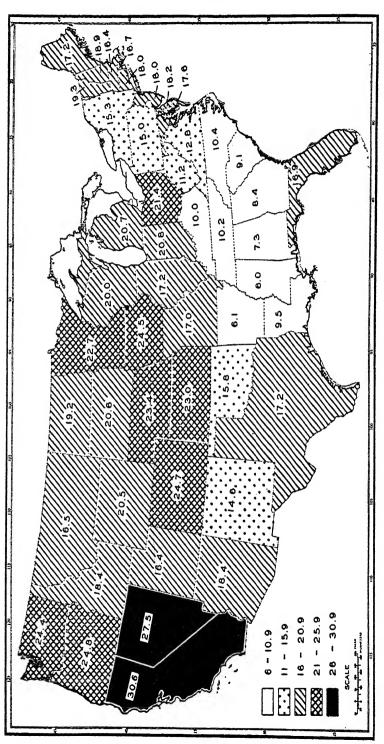


Fig. 87.—Passenger automobiles per 100 population, 1932. Source: Same as for Table 73. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

estimated at 80,000,000 or more. Table 72 shows the estimated distribution of theaters, their total receipts, and the per capita expenditures for the nation.<sup>11</sup>

#### AUTOMOBILES AND HARD-SURFACED ROADS

Like the motion picture, the automobile has been developed since 1900. In 1895, there were only four cars in the United

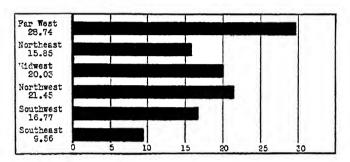
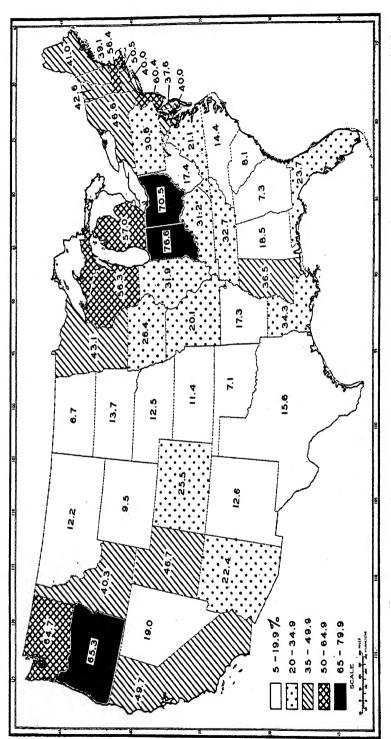


Fig. 88.—Regional summary of passenger automobiles per 100 population, 1932

States. In 1900, the number had grown to 8,000. In 1920, it had risen to 8,225,859, and in 1930, to 23,059,000—a situation showing that there are approximately one-fourth as many cars

"The report of the U.S. National Resources Committee, Research Committee on Urbanism, in its ["Study of Communication Facilities"] comments as follows upon the data in the table:

"The only available figures on motion picture attendance are national estimates of the Motion Picture Producers and Distributors of America, which appear in the issues of the Film Year Book, and various estimates of attendance of certain films compiled by motion picture trade periodicals. This extreme paucity of information is much to be regretted; it would seem extremely desirable for the Motion Picture Division of the Department of Commerce to attempt some compilation on attendance, or that such information be assembled as part of the Census of Business. In 1933 the Department of Commerce, in the Census of Business and through a special Civil Works Administration Project, made a census of services, amusements and hotels, which included the number of motion picture theaters and receipts collected in that year, by state, for cities with a population of more than 50,000. This was the first official census that has been made of the retail end of the motion picture business. Compared with information given in the Film Year Book there appears to be a rather serious under-enumeration of the number of motion picture theater establishments in the Census of Business. It is difficult, however, to estimate the degree of accuracy of the Year Book reports. There were no figures on attendance included in the Census of Business."



Fro. 89.—Per cent of farms on hard-surfaced roads, 1929. Source: Same as for Table 74. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

housed in garages, or otherwise, as there are volumes shelved in all the public libraries in the nation.<sup>12</sup>

The principal function of the automobile and of the hard-surfaced road, which has accompanied its development, may be considered to be transportation. Its function as a means of communication, however, is extremely important and has brought to America, particularly rural America, one of its principal means of eliminating rural isolation, extending social contact, and multiplying cultural opportunities. Without the automobile the service of the county library would be all but impossible, and the country-wide use of the library book as a means of transmitting ideas would be severely limited.

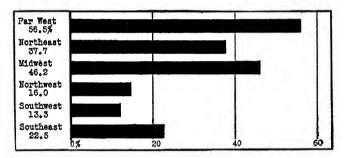


Fig. 90.—Regional summary of per cent of farms on hard-surfaced roads, 1929

The distribution of both automobiles and of farms located on hard-surfaced roads is shown in Tables 73 and 74, and Figures 87 to 90. In the case of automobiles, the distribution is not broken down into urban and rural categories, but the population of the state as a whole is used as the unit. The data concerning farms on hard-surfaced roads, however, relate specifically to rural America, as the effectiveness of the automobile in breaking down isolation is, to a large degree, dependent upon the character of the roads which serve rural populations. Together, the two have tremendously reduced both the physical and mental isolation which formerly hemmed in the country dweller. And

<sup>&</sup>lt;sup>12</sup> U.S. Bureau of Foreign and Domestic Commerce, Statistical Abstract of the United States: 1934 (Washington: Government Printing Office, 1934), p. 339.

while they have been doing this for the countryside, they have helped the city resident to extend the limits of suburban and metropolitan areas.

# SUMMARY

A few selected facilities of communication and transportation have been sketched in this chapter, not with the intention of showing their immensity and complexity, but rather with that of suggesting their general relation to library development. They are a part of America's economic, social, and cultural heritage, and, therefore, cannot be overlooked in view of their effect upon such institutions and agencies as the library and the school, with which they are consciously or unconsciously associated. Their rapid development and use, like that of the nineteenth-century telegraph, which tremendously reduced the element of time in person-to-person communication, and like that of the city and rural free delivery which brought books, magazines, and newspapers to the doors of both urban and rural dwellers, have profoundly affected the daily thinking and living of the masses of the American people. How the influence of telephones, radios, and motion picture theaters may be further magnified, or what will be the nature of their future impact upon the library can at present be but vaguely sensed. That their distribution throughout the nation follows, in general, the pattern of library distribution, is abundantly supported by the data presented. Where libraries exist, these media for the communication of ideas exist, also; where libraries are lacking, these are likewise relatively lacking. All three media though this is less true in the case of the radio—are, like libraries, bookstores, magazines, and daily newspapers, more numerous in areas that are predominantly urban.

# CHAPTER XI

# PUBLIC SCHOOLS

HE library has always been considered an agency of society for the promotion of public enlightenment. It has shared this position with the school, the college, the university, the art museum, and many other organizations engaged in educational, religious, and recreational activities, all working more or less independently.

Since the primary function of the library is assumed to be that of furnishing individuals and groups with reading materials in direct response, frequently, to the demands of members of schools, study clubs, and other organizations engaged in educational, religious, or recreational activities, its distribution may well be considered in relation to that of the various organizations which it thus serves. The question may be asked: Does the status of these facilities bear any significant relation to the status of library service? This chapter is devoted to answering this question in so far as it relates to the public school.

Although there is no national system of education in the United States, the educational facilities of the country are organized on a more extensive basis than those of any other nation. For the year ended June 30, 1932, total expenditures for education in continental United States, not including correspondence and commercial schools, amounted to \$2,968,010,400.¹ Of this amount, 73 per cent, or \$2,174,650,555, was for public elementary (including kindergarten) and high schools; about 8 per cent, or \$229,563,702, was for private schools of similar grade; and about 18 per cent, or \$543,855,466, was expended by colleges, universities, and teachers colleges. In 1933–34, the enrolment in the elementary schools, public and private, was

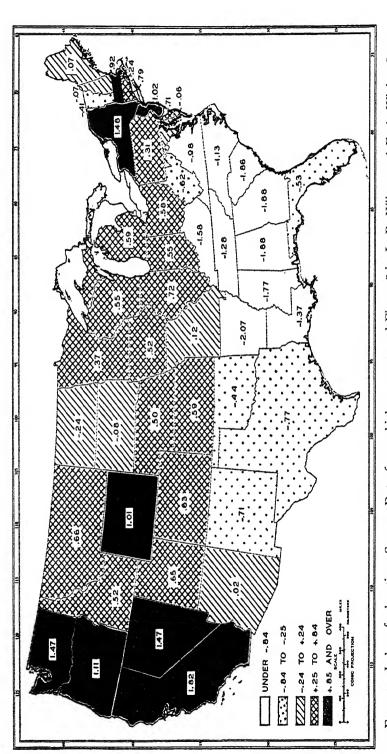
<sup>&</sup>lt;sup>1</sup> C. S. Marsh, ed., *American Universities and Colleges* (3d ed.; Washington: American Council on Education, 1936), p. 5.

TABLE 75\* INDEX OF EDUCATION AND INDEX OF PUBLIC LIBRARY DEVELOPMENT, 1934

State	Rank	Index of Education	Index of Public Library Develop- ment, 1934
California	1	1.82	2 06
New York	2	1.48	0 80
Washington	3	1.47	0 52
Nevada	3	1.47	0 63
Oregon	5	1.11	0 90
New Jersey	5 6	1.02	0 96
Wyoming	7	1.01	1.11
Massachusetts	8	0.92	2 31
Connecticut	9	0.79	1 56
Illinois	10	0.72	0.43
Delaware ,	II	0.71	0 71
Montana	12	0.66	-0 18
Utah	13	0.65	0 16
Colorado	13 14	0.63	0 02
Kansas	15	0.59	-0 51
Michigan .	15	0.59	0 37
Ohio	17	0.58	0 98
Wisconsin.	18	0.55	0 58
Indiana	18	0.55	o 77
Iowa	20	0.52	-o oi
Idaho	20	0.52	-0.64
Vahranka	22	0.50	-0 23
Minnesota	23	0.37	0 15
Pennsylvania	24	0.31	-0 39
T1 - 1 7 1 3	25	0.24	1.14
Missouri	26	0.12	-0.37
Maine	27	0.07	0.68
Arizona	28	0.02	-0.50
Maryland	29	-0.06	-0 11
New Hampshire	30	-0.07	2.16
South Dakota	31	-0.07 -0.08	-0 60
North Delrote	32	-0.24	-1.11
Vermont	33	-0.4I	1.52
Oklahoma	33	-0.44	-0.8I
Florida.	35	-0.53	-0.81 -0.82
West Virginia	36	-0.62	
New Mexico.	37	-0.7I	-1.39 -1.07
Texas.	38	-0.77	
Virginia	39	-0.98	-o 97
North Carolina	40	-1.13	-0 90
Tennessee	1	-1.13 -1.28	-o 97
Louisiana	4I 42	-1.26 -1.37	0.82 1.06
Kentucky.	43	—1.37 —1.58	
Mississippi			-0 99 -1.28
South Carolina	44	-1.77 -1.86	
Georgia	45 46	-1.88 -1.88	-1.06
Alabama	46	-1.88	-1.1 <sub>4</sub>
Arkansas	48	-1.88 -2.07	-I.14 -I.45
	40	-2.0/	-1.45

<sup>\*</sup>Source: Table 51; based also upon data from which was prepared Figure 8 in L. R. Wilson and E. A Wight, County Library Scroice in the South (Chic.: U. of C. Press, 1935), p. 14.

The index of education is the average of the standard scores of the individual data involved. The average has been adjusted to preserve the standard score concept; thus it is actually the standard score of the average of the separate standard scores. It includes four items (1) ratio of aggregate days attended to total population 5-17 years of age; (2) daily expenditure per pupil in average daily attendance, (3) average annual salary per teacher; (4) per cent of total public enrolment in secondary schools.



Library Service in the South (Chicago: University of Chicago Press, 1935), p. 14. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.) Fig. 91.—Index of education. Source: Data from which was prepared Figure 8 in L. R. Wilson and E. A. Wight, County

23,262,371. In public and private high schools, it was 6,096,488, or approximately 60 per cent of the nation's population of high school age.<sup>2</sup> In the same year, enrolment in public and private colleges and universities of the United States was 1,055,360. The total enrolment for all three was 30,414,219.

The aspects of public education which might be considered in relation to library development are so numerous and have been treated so frequently that for the purposes of this study it will suffice to rely principally upon an educational index to convey the general impression of educational development by states and regions. The index used here is based on the following factors: (1) the ratio of aggregate days attended to population 5–17 years of age, which ratio includes: (a) population of school age, (b) length of school term, (c) average daily attendance; (2) daily expenditure per pupil in average daily attendance; (3) average annual salary per teacher; (4) per cent of total public enrolment in secondary schools.

The index derived in this way correlates very closely with the educational index developed by Ayres in 1930.<sup>3</sup> If the former is compared (see Table 75 and Fig. 91) with the library index (Table 51 and Fig. 50), it will be seen that twenty-two states are in the same interval, nineteen vary one, six vary two, and one (Vermont) varies three intervals.

Table 76 reveals other differences. It shows that western states rank higher in educational facilities, for the most part, while states which rank significantly higher in library development are eastern. Regionally, all of the states of the Far West rank above the mean on both indices; in the Southeast all the states rank below on both, as do three of the four states in the Southwest. In the Midwest, all the states rank above on both indices, except Iowa and Missouri which fall below in library facilities. The Northeast has two states ranking two intervals

<sup>&</sup>lt;sup>2</sup> U.S. Office of Education, *Biennial Survey of Education in the United States: 1932–1934*, Bulletin 1935, No. 2 (Washington: Government Printing Office, 1937), chap. i, p. 6.

<sup>&</sup>lt;sup>3</sup> L. P. Ayres, An Index Number for State School Systems (New York: Department of Education, Russell Sage Foundation, 1920).

higher on the library than on the educational index, and Vermont ranks three intervals higher. Pennsylvania's library index, however, is two intervals lower than its educational index. The Northwest, likewise, presents wide variations. Delaware is the only state that ranks exactly the same in respect to both indices.

TABLE 76\*
States with Wide Variation in Ranking on Index of Public Library Development and on Index of Education

STATE	STANDARD SCORE			
STATE	Education	Library	Difference	
Northeast:  New Hampshire  Vermont  Massachusetts  Rhode Island	-0 07	2 16	2 23	
	-0 41	1 52	1.93	
	0 92	2.31	1.39	
	0.24	1.14	0 90	
Southeast: South Carolina	-1.86	-1.06	0 80	
Northwest: Idaho	0.52	-0.64	1.16	
	0.59	-0.51	1.10	
	-0.24	-1.11	0.87	
	0.66	-0.18	0.84	
Far West: Washington Nevada	I 47	0.52	o 95	
	I.47	0.63	o 84	

<sup>\*</sup> Source: Tables 51 and 75.

# DIFFERENCES DUE TO ILLITERACY

In order to understand more fully the relationship which exists between the status of schools and libraries, it is necessary to emphasize several factors which particularly affect library development. Three such factors are: (1) the per cent of literate people in each state; (2) the number of one-room school houses; and (3) the number of children 5-17 years of age per 100 population in each state. People who have not mastered

TABLE 77\* LITERATE PEOPLE PER 100 POPULATION 10 YEARS OF AGE, AND OVER, 1930

S	D	Literate People 10 Years of Age and Over		Standard
State	RANK	Total	Per 100 Population	Score
Iowa	I	1,991,820	99 2	0 99
Oregon	2	795,594	99 0	0 94
Washington	2	1,299,071	99 0	0 94
Idaho	4	345,405	98 9	0 92
Kansas	5	1,5∞,882	98 8	0 89
Nebraska	5	1,093,414	98.8	0 89
South Dakota .	5	536,801	98.8	0 89
Utah	5	381,707	98.8	0 89
Minnesota	9	2,049,899	98 7	0 86
North Dakota	10	519,186	98.5	0 81
Wyoming	11	176,078	98 4	0 79
Indiana.	12	2,594,835	98 3	0 76
Montana .	12	427,048	98 3	0 76
Wisconsin .	14	2,332,192	98.1	0 71
Michigan	15	3,815,114	98 0	0 68
Vermont	16	285,315	97 8	0 63
Missouri	17	2,916,463	97.7	0 61
Ohio	17	5,310,457	97.7	0 61
Illinois	19	6,179,539	97 6	0 58
California	20	4,681,680		-
Maine	21	625,487	97 4	o 53 o 50
New Hampshire	21	372,169	97.3	-
Colorado	23	812,200	97 3 97 2	0 50
Oklahoma	23	1,794,555	97 2	0 48
Pennsylvania	25		96 9	0 48
Massachusetts	26	7,490,737		0 40
New York	27	3,385,159	96 5	0 30
Maryland	28		96 3	0 25
New Jersey	28	1,274,331	96 2 96 2	0 22
Delaware.		3,202,726	1 - 1	0 22
Connecticut	30	188,971	96 0	0.17
Nevada	31	1,261,600	95 5	0 04
West Virginia.	31	72,755	95 5	0 04
Rhode Island	33	1,239,260	95 2	-o o <u>3</u>
L'antroles	34	532,717	95.1	-0 06
Arkansas	35 36	1,873,947	93 4	-0 50
Texas.		1,323,127	93 2	-0 55
Florida	36 28	4,239,866	93 2	-0 55
Tennessee	38	1,091,010	92 9	-0 63
Virginia.	39	1,882,649	92 8	-0 65
Georgia	40	1,710,250	91 3	-1 04
North Carolina	4I	2,027,456	90 6	-I 22
Arizona	42	2,115,753	90 0	-I 37
Alabama	43	301,060	89 9	-1 40
Mississippi	44	1,749,558	87 4	-2 04
New Mexico.	45	1,326,367	86 9	-2 17
т	46	272,525	86 7	-2 22
South Carolina.	47	1,403,118	86.5	-2.27
South Caronna	48	1,1∞,061	85.1	-2.63
			1,	

<sup>\*</sup>Source U.S. Bur. For. and Dom. Comm., Statistical Abstract of the United States, 1935 (Wash.: Govt. Print. Off., 1935), pp. 36, 42, H.W Odum, "Southern Regional Study Tables" (Typewritten; Chapel Hill. U. of N. C.), p. 25.

Mean of literates per 100 population 10 years of age and over (based on means of the 48 states), 95.3; standard deviation, 3,892; U.S. total, 94,439,294; U.S. literates per 100 population 10 years of age and over (including District of Columbia), 76.9.

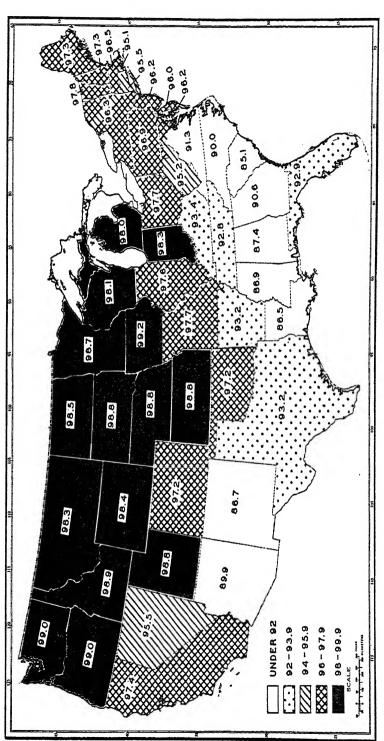


Fig. 92.—Literate people per 100 population 10 years of age, and over, 1930. Source: Sume as for Table 77. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

the mechanics of reading are obviously not users of library facilities. Populations with high percentages of children to adults should develop school libraries more extensively, and libraries for adults less extensively, than populations where the conditions are the opposite. And the problem of providing library service for the elementary one-room school is far more difficult than that of providing service for the consolidated or urban elementary school or high school. Table 77 and Figures 92 and 93 show the differences in literacy among states.

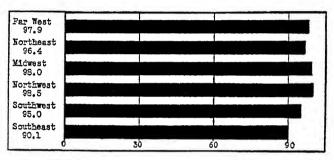


Fig. 93.—Regional summary of literate people per 100 population 10 years of age, and over, 1930.

The regional differences as to literacy, while not seemingly great in terms of actual per cents, are nonetheless extremely important. They range from 98.5 to 90.1 per hundred population. The Northwest is highest, the Southeast is lowest. The range for all the states is from 99.2 in Iowa to 85.1 per cent in South Carolina.

# NUMBER OF PEOPLE 5-17 YEARS OF AGE

Differences in ability to provide educational facilities, due to the number of children of school age per 100 population, are also very important when viewed in relation to library support. The variation in this particular, by states, as revealed in Table 78 and in Figures 94 and 95, is from 20.08 in California to 34.08 in South Carolina. This means that for every community of 1,000 population the educational authorities in South Carolina have to provide for 340 pupils, while in California, in a com-

		<del></del>		<del> </del>
State	Rank	People 5-17 Years of Age		Standard
		Total	Per 100 Population	Score
South Carolina.	I	594,700	34.08	2 50
North Carolina	2	1,053,300	32.47	1 97
Alabama .	3	823,100	30.69	1 39
Georgia	4	890,100	30 59	1 36
Utah	5	156,000	30 29	1 26
Mississippi	6	615,800	30 25	1.25
West Virginia	7	530,6∞	30.15	1 21
New Mexico	8	129,600	30.07	I 19
Arkansas	9	559,600	29 97	1.16
North Dakota	10	204,600	29.87	1 13
Virginia	11	719,700	29.56	1 02
Oklahoma	12	702,400	28 79	0 77
Kentucky	13	759,1∞	28 78	0.76
Louisiana	14	612,200	28.63	0 72
Idaho	15	127,900	28.61	0 71
Tennessee	16	757,5∞	28 58	0.70
South Dakota	17	197,7∞	28.24	0.59
Texas	18	1,653,8∞	27.73	0 43
Arizona	19	120,800	26.96	0 17
Pennsylvania .	20	2,585,7∞	26 54	0 04
Montana	21	141,349	26.27	-0.05
Nebraska	22	359,200	25 88	-0 17
Wyoming	23	59,1∞	25 81	-0.20
Minnesota	24	662,1∞	25 61	-o 26
Florida	25	391,100	25 60	-o 26
Kansas	26	478,1∞	25.24	-o 38
Wisconsin .	26	751,200	25.24	-o 38
Colorado	28	264,200	25.23	—o 38
Connecticut	29	412,000	25 21	-0 40
Iowa	30	616,8∞	24.88	-0 50
Rhode Island	31	173,1∞	24 80	-o 53
Michigan	32	1,233,8∞	24.76	-0.54
Maine	33	197,6∞	24.67	-o 57
Maryland	34	407,5∞	24.65	-0.58
Vermont	35	88,000	24.44	-0.6s
New Jersey	36	1,011,300	24.38	-o 6 <sub>7</sub>
Delaware	37	58,200	24.25	-o 7o
Indiana	38	792,000	24.18	-o 73
Ohio	39	1,631,700	24 16	-0 74
Massachusetts .	39	1,014,600	24.16	-0 91
New Hampshire	41	110,400	23 59	-0 92
Missouri	42	860,200	23.53	-0 94
Illinois	<del>4</del> 3	1,795,000	23.11	-1 08
Washington	44	362,8∞	22.85	-1.17
Oregon	45	218,300	22.41	-1.31
New York	46	2,844,500	22.13	-1.40
Nevada	47	19,400	20.86	-1.82
California	48	1,194,400	20.08	-2.07
	•-	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1	,

<sup>\*</sup>Source U.S Off Educ., Biennial Survey of Education, 1930-1932, Bull. 1933, No. 2 (Wash. Govt. Print. Off., 1935), chap. i, p. 52.

Mean of people 5-17 years of age per 100 population (based on means of the 48 states), 25.60, standard deviation, 3.06, U.S. total, 32,031,549; U.S. people 5-17 years of age per 100 population (including District of Columbia), 26.09.

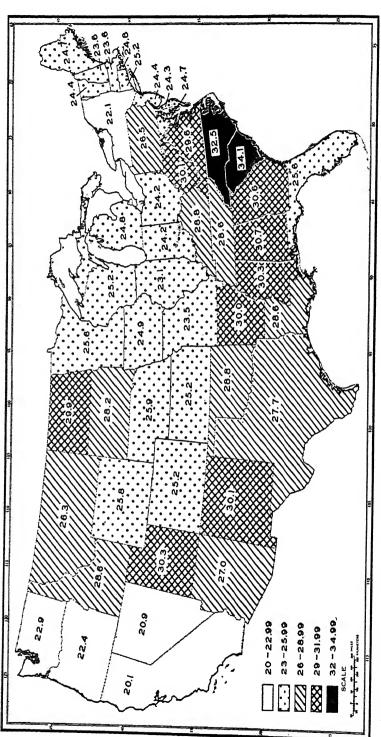


Fig. 94.—People 5-17 years of age per 100 population, 1930. Source: Same as for Table 78. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

munity of the same size, they provide for only 200 pupils. If forty pupils are assigned to a teacher,  $8\frac{1}{2}$  teachers (actually 9) and  $8\frac{1}{2}$  rooms (actually 9) will have to be provided for the South Carolina community, whereas only five teachers and five rooms will have to be provided for the California community. The difficulties for South Carolina are further heightened by reason of the fact that separate facilities must be provided for two races. Yet greater complexities are presented in most rural communities, not only because their school populations per

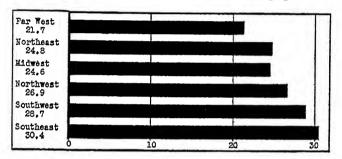


Fig. 95.—Regional summary of people 5-17 years of age per 100 population, 1930

1,000 total population are relatively larger than those of urban communities but also because transporation facilities have to be provided in the case of consolidated schools. The importance of these data will appear if Figure 94 (People 5–17 years of age per 100 population, 1930) is contrasted with Figure 50 (Index of public library development, 1934). In this comparison it is found that of the ten states having the highest library index, five are in the list of the ten states having the lowest number of persons 5–17 years of age per 100 population.

The full significance of this difference in number of children in the different population groups is further emphasized in Table 93, chapter xiii, which shows that in every 1,000 population in South Carolina, 506 persons are nineteen years of age, or under, while in California the number is only 304. It is also emphasized in data by Mr. Edwards, which show the ratio of children 7–13 years of age to 1,000 adults 20–64 years of age.<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> Newton Edwards, a professor of education at the University of Chicago, has made extensive computations of data of this character for the American Youth Commission.

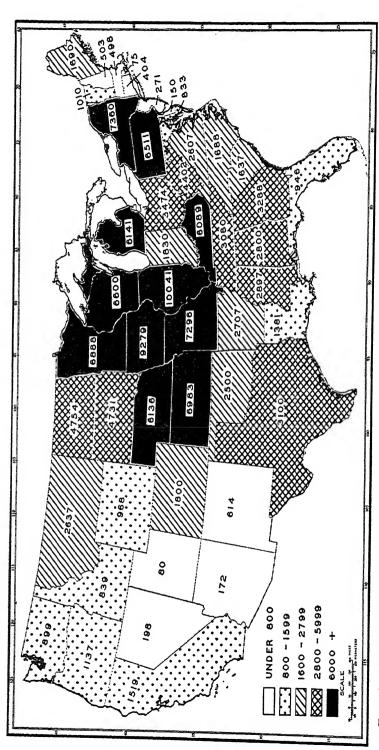


Fig. 96.—Number of one-room schools. Source: U.S. Office of Education, Biennial Survey of Education, 1930-1932, Bulletin 1933, No. 2 (Washington: Government Printing Office, 1935), chap. i, p. 70. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

TABLE 79\* MEAN ANNUAL SALARY OF TEACHERS, SUPERVISORS, AND PRINCIPALS, 1931-32

State	Rank	Mean Annual Salary	Standard Score
New York	I	\$2,494	2.89
New Jersey	2	2,192	2.19
California	3	2,189	2.18
Connecticut	4	1,970	1.67
Massachusetts	5	1,845	I 38
Delaware	6	1,631	0 87
Pennsylvania	7	1,630	0.87
Arizona	8	1,605	0.87
Rhode Island.	9		
Illinois	10	1,599	0.79
Ohio	11	1,598	0 79
Washington.	12	1,573	0 74
Maryland	13	1,553	o 70 o 62
Michigan	•	1,523	
Indiana	14	1,522	0 61
Nevada	15 16	1,497	0 56
Oregon		1,483	0 53
Wisconsin	17	1,439	0 43
Colorado	18	1,388	0.31
2.61	19	1,386	0 30
	20	1,305	0 11
New Hampshire .	21	1,258	0 00
Wyoming	22	1,250	-0 02
Utah	23	1,239	-0 04
Missouri.	24	1,230	-o o6
Montana .	25	1,184	-o 17
Idaho	26	1,160	-o 23
Kansas	27	1,123	-0 3ī
Oklahoma	28	1,102	—о 36
Iowa	29	1,096	−0 38
New Mexico.	29	1,096	-о 38
West Virginia	31	1,085	-0 40
Nebraska	32	1,051	-0 48
Maine	33	952	-o 71
South Dakota	3 <b>-</b>	944	-0 73
Vermont	35	931	0 76
Texas	36	912	-0.80
North Dakota	37	900	<b>-0.8</b> 3
Louisiana	38	895	-0 8 <sub>5</sub>
Florida	39	867	-0.91
Virginia	40	859	-0.93
Kentucky	41	835	-o 99
Tennessee	42	826	-1.01
North Carolina	43	799	-ı o7
Alabama	44	710	<b>—</b> I.28
Georgia	45	690	-1.33
South Carolina	46	668	<del>-</del> 1.38
Mississippi	47	655	-1.41
Arkansas	48	593	-I.55

\* Source: U.S. Off. Educ., Buennial Survey of Education, 1930-1932, chap. i,

p 16.

Mean annual salary (based on means of the 48 states), \$1,257; standard deviation, \$427.65, U.S mean annual salary (including District of Columbia), \$1,417.

TABLE 80\*

Mean Annual Salary of Rural Teachers, Supervisors, and Principals, 1931–32

State				
California         2         2,143         3.18           New Jersey         3         1,637         1.78           New York         4         1,511         1.43           Arizona         5         1,498         1.39           Nevada         6         1,372         1 05           Delaware         7         1,364         1.02           Indiana         8         1,249         0 71           Washington         9         1,238         0.68           Maryland         10         1,218         0.62           Pennsylvania         11         1,161         0.46           Oregon         12         1,151         0.43           Idaho         13         1,072         0.22           Wyoming         14         1,069         0.21           Montana         15         1,061         0.19           New Hampshire         16         1,052         0.16           Wisconsin         17         1,043         0.14           Utah         18         1,034         0.11           Ohio         19         1,028         0.09           Michigan         20         1,025 <th>State</th> <th>Rank</th> <th>Mean Annual Salary</th> <th>Standard Score</th>	State	Rank	Mean Annual Salary	Standard Score
California         2         2,143         3.18           New Jersey         3         1,637         1.78           New York         4         1,511         1.43           Arizona         5         1,498         1.39           Nevada         6         1,372         1 05           Delaware         7         1,364         1.02           Indiana         8         1,249         0 71           Washington         9         1,238         0.68           Maryland         10         1,218         0.62           Pennsylvania         11         1,161         0.46           Oregon         12         1,151         0.43           Idaho         13         1,072         0.22           Wyoming         14         1,069         0.21           Montana         15         1,061         0.19           New Hampshire         16         1,052         0.16           Wisconsin         17         1,043         0.14           Utah         18         1,034         0.11           Ohio         19         1,028         0.09           Michigan         20         1,025 <td>Connecticut</td> <td>1</td> <td>\$2,152</td> <td>3 20</td>	Connecticut	1	\$2,152	3 20
New Jersey         3         1,637         1.78           New York         4         1,511         1.43           Arizona         5         1,498         1 39           Nevada         6         1,372         1 05           Delaware         7         1,364         1.02           Indiana         8         1,249         0 71           Washington         9         1,238         0.68           Maryland         10         1,218         0.62           Pennsylvania         11         1,161         0 46           Oregon         12         1,151         0 43           Idaho         13         1,072         0 22           Wyoming         14         1,069         0 21           Montana         15         1,061         0 19           New Hampshire         16         1,052         0.16           Wisconsin         17         1,043         0.11           Ohio         19         1,028         0.09           Michigan         20         1,025         0 08           Illinois         21         1,017         0 06           Massachusetts         22	O 114 1	ı		
New York         4         1,511         1.43           Arizona.         5         1,498         1.39           Nevada         6         1,372         1.05           Delaware         7         1,364         1.02           Indiana.         8         1,249         0.71           Washington.         9         1,238         0.68           Maryland.         10         1,218         0.62           Pennsylvania.         11         1,161         0.46           Oregon.         12         1,151         0.43           Idaho.         13         1,072         0.22           Wyoming.         14         1,069         0.21           Montana.         15         1,061         0.19           New Hampshire         16         1,052         0.16           Wisconsin.         17         1,043         0.11           Ohio.         19         1,028         0.09           Michigan         10         1,028         0.09           Michigan         20         1,025         0.08           Illinois         21         1,017         0.06           Massachusetts         22				
Arizona.		1	,	
Nevada         6         1,372         1 05           Delaware         7         1,364         1.02           Indiana         8         1,249         0 71           Washington         9         1,238         0.68           Maryland         10         1,218         0.62           Pennsylvania         11         1,161         0.46           Oregon         12         1,151         0.43           Idaho         13         1,072         0.22           Wyoming         14         1,069         0.21           Montana         15         1,061         0.19           New Hampshire         16         1,052         0.16           Wisconsin         17         1,043         0.14           Utah         18         1,034         0.11           Ohio         19         1,025         0.08           Michigan         11         1,023         0.09           Michigan         20         1,025         0.08           Illinois         21         1,017         0.06           Massachusetts         22         1,013         0.05           Colorado         23         1,				
Delaware         7         1,364         1.02           Indiana         8         1,249         0.71           Washington         9         1,238         0.68           Maryland         10         1,218         0.62           Pennsylvania         11         1,161         0.46           Oregon         12         1,151         0.43           Idaho         13         1,072         0.22           Wyoming         14         1,069         0.21           Montana         15         1,061         0.19           New Hampshire         16         1,052         0.16           Wisconsin         17         1,043         0.14           Utah         18         1,024         0.11           Ohio         19         1,028         0.09           Michigan         20         1,025         0.08           Illinois         21         1,017         0.06           Massachusetts         22         1,013         0.05           Colorado         23         1,08         0.04           New Mexico         24         998         0.01           West Virginia         25		6		
Indiana		Į		, -
Washington       9       1,238       0.68         Maryland       10       1,218       0.62         Pennsylvania       11       1,161       0.46         Oregon       12       1,151       0.43         Idaho       13       1,072       0.22         Wyoming       14       1,069       0.21         Montana       15       1,061       0.19         New Hampshire       16       1,052       0.16         Wisconsin       17       1,043       0.14         Utah       18       1,024       0.11         Ohio       19       1,028       0.09         Michigan       20       1,025       0.08         Illinois       21       1,017       0.06         Massachusetts       22       1,013       0.05         Colorado       23       1,008       0.04         New Mexico       24       998       0.01         West Virginia       25       956       -0.10         Oklahoma       26       955       -0.11         Kansas       27       949       -0.12         Minnesota       28       938       -0.15			1	í
Maryland       10       1,218       0.62         Pennsylvania       11       1,161       0.46         Oregon       12       1,151       0.43         Idaho       13       1,072       0.22         Wyoming       14       1,069       0.21         Montana       15       1,061       0.19         New Hampshire       16       1,052       0.16         Wisconsin       17       1,043       0.14         Utah       18       1,034       0.11         Ohio       19       1,025       0.08         Illinois       21       1,017       0.06         Massachusetts       22       1,013       0.05         Colorado       23       1,026       0.08         Illinois       21       1,017       0.06         Massachusetts       22       1,013       0.05         Colorado       23       1,028       0.04         New Mexico       24       998       0.01         West Virginia       25       956       -0       10         Oklahoma       26       955       -0       11         Kansas       27 <td< td=""><td></td><td></td><td>, ,,</td><td>l '.</td></td<>			, ,,	l '.
Pennsylvania         11         1,161         0 46           Oregon         12         1,151         0 43           Idaho         13         1,072         0 22           Wyoming         14         1,069         0 21           Montana         15         1,061         0 19           New Hampshire         16         1,052         0.16           Wisconsin         17         1,043         0.11           Ohio         19         1,028         0.09           Michigan         20         1,025         0.08           Illinois         21         1,017         0.06           Massachusetts         22         1,013         0.05           Colorado         23         1,028         0.09           New Mexico         24         998         0.01           West Virginia         25         956         -0 10           Oklahoma         26         955         -0 11           Kansas         27         949         -0.12           Minnesota         28         938         -0.15           Iowa         29         913         -0.22           South Dakota         30			, ,	i e
Oregon.         12         1,151         0 43           Idaho.         13         1,072         0 22           Wyoming.         14         1,069         0 21           Montana         15         1,061         0 19           New Hampshire         16         1,052         0.16           Wisconsin.         17         1,043         0 14           Utah.         18         1,034         0.11           Ohio.         19         1,028         0.09           Michigan         20         1,025         0 08           Illinois         21         1,017         0 06           Massachusetts         22         1,013         0.05           Colorado.         23         1,008         0 04           New Mexico.         24         998         0 01           West Virginia         25         956         -0 10           Oklahoma.         26         955         -0 11           Kansas.         27         949         -0.12           Minnesota         28         938         -0.15           Iowa         29         913         -0 22           South Dakota         30				
Idaho.         13         1,072         0 22           Wyoming.         14         1,069         0 21           Montana         15         1,061         0 19           New Hampshire         16         1,052         0.16           Wisconsin.         17         1,043         0.11           Ohio.         19         1,024         0.11           Ohio.         19         1,025         0 08           Illinois         21         1,017         0 06           Massachusetts         22         1,013         0.05           Colorado.         23         1,08         0 04           New Mexico.         24         998         0 01           West Virginia         25         956         0 10           Oklahoma.         26         955         -0 11           Kansas.         27         949         -0.12           Minnesota         28         938         -0.15           Iowa.         29         913         -0.22           South Dakota         30         861         -0.36           Nebraska         31         859         -0.37           North Dakota         32				
Wyoming.         14         1,069         0 21           Montana         15         1,061         0 19           New Hampshire         16         1,052         0.16           Wisconsin.         17         1,043         0 14           Utah.         18         1,024         0.11           Ohio.         19         1,028         0.09           Michigan         20         1,025         0 08           Illinois         21         1,017         0 06           Massachusetts         22         1,013         0.05           Colorado.         23         1,08         0 04           New Mexico.         24         998         0 01           West Virginia         25         956         -0 10           Oklahoma.         26         955         -0 11           Kansas.         27         949         -0.12           Minnesota.         28         938         -0.15           Iowa.         29         913         -0.22           South Dakota.         30         861         -0.36           Nebraska.         31         859         -0.37           North Dakota.         32<				
Montana         15         1,061         0 19           New Hampshire         16         1,052         0.16           Wisconsin         17         1,043         0 14           Utah         18         1,034         0.11           Ohio         19         1,028         0.09           Michigan         20         1,025         0 08           Illinois         21         1,017         0 06           Massachusetts         22         1,013         0.05           Colorado         23         1,08         0 04           New Mexico         24         998         0 01           West Virginia         25         956         -0 10           Oklahoma         26         955         -0 11           Kansas         27         949         -0.12           Minnesota         28         938         -0.15           Iowa         29         913         -0.22           South Dakota         30         861         -0.36           Nebraska         31         859         -0.37           North Dakota         32         833         -0.44           Vermont         33         <	Wyoming		1 ' '	
New Hampshire         16         1,052         0.16           Wisconsin.         17         1,043         0.14           Utah.         18         1,034         0.11           Ohio.         19         1,028         0.09           Michigan         20         1,025         0.08           Illinois         21         1,017         0.06           Massachusetts.         22         1,013         0.05           Colorado.         23         1,08         0.04           New Mexico.         24         998         0.01           West Virginia         25         956         -0.10           Oklahoma.         26         955         -0.11           Kansas.         27         949         -0.12           Minnesota.         28         938         -0.15           Iowa.         29         913         -0.22           South Dakota.         30         861         -0.36           Nebraska.         31         859         -0.37           North Dakota.         32         833         -0.44           Vermont.         33         785         -0.53           Missouri.         34				
Wisconsin.         17         1,043         0 14           Utah.         18         1,034         0.11           Ohio.         19         1,028         0.09           Michigan         20         1,025         0 08           Illinois         21         1,017         0 66           Massachusetts.         22         1,013         0.05           Colorado.         23         1,008         0 04           New Mexico.         24         998         0 01           West Virginia         25         956         —0 10           Oklahoma         26         955         —0 11           Kansas.         27         949         —0.12           Kansas.         29         913         —0.22           South Dakota         30         861         —0.36           Nebraska         31         859         —0.37           North Dakota         32         833         —0.44           Vermont         33         785         —0.53           Missouri         34         774         —0.61           Maine         35         771         —0.62           North Carolina         36	New Homobine	-	, ,	,
Utah         18         1,034         0.11           Ohio         19         1,028         0.09           Michigan         20         1,025         0.08           Illinois         21         1,017         0.06           Massachusetts         22         1,013         0.05           Colorado         23         1,008         0.04           New Mexico         24         998         0.01           West Virginia         25         956         -0 10           Oklahoma         26         955         -0 11           Kansas         27         949         -0.12           Minnesota         28         938         -0.15           Iowa         29         913         -0.22           South Dakota         30         861         -0.36           Nebraska         31         859         -0.37           North Dakota         32         833         -0.44           Vermont         33         785         -0.53           Missouri         34         774         -0.61           Maine         35         771         -0.62           North Carolina         36         7	Wissensin		1	
Ohio.         19         1,028         0.09           Michigan         20         1,025         0.08           Illinois         21         1,017         0.06           Massachusetts         22         1,013         0.05           Colorado.         23         1,008         0.04           New Mexico.         24         998         0.01           West Virginia         25         956         -0.10           Oklahoma.         26         955         -0.11           Kansas.         27         949         -0.12           Minnesota         28         938         -0.15           Iowa         29         913         -0.22           South Dakota         30         861         -0.36           Nebraska         31         859         -0.37           North Dakota         32         833         -0.44           Vermont         33         785         -0.53           Missouri         34         774         -0.61           Maine         35         771         -0.62           North Carolina         36         702         -0.81           Tennessee         37				
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Vermont.         33         785         -0.53           Missouri.         34         774         -0.61           Maine.         35         771         -0.62           North Carolina.         36         702         -0.81           Tennessee.         37         695         -0.89           Louisiana.         38         672         -0.89           Kentucky.         39         663         -0.91           Virginia.         40         653         -0.94           Texas         41         650         -0.95           Florida.         42         623         -1.02           Rhode Island.         43         604         -1         07           Mississippi.         44         602         -1         08           Alabama.         45         588         -1.12           South Carolina         46         560         -1         20           Georgia.         47         492         -1         39	Neoraska	-		
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Tennessee.     37     695     -0 83       Louisiana     38     672     -0.89       Kentucky     39     663     -0 91       Virginia     40     653     -0 94       Texas     41     650     -0.95       Florida     42     623     -1.02       Rhode Island     43     604     -1 07       Mississippi     44     602     -1 08       Alabama     45     588     -1.12       South Carolina     46     560     -1 20       Georgia     47     492     -1.39	Name			
Louisiana     38     672     -0.89       Kentucky     39     663     -0 91       Virginia     40     653     -0 94       Texas     41     650     -0.95       Florida     42     623     -1.02       Rhode Island     43     604     -1 07       Mississippi     44     602     -1 08       Alabama     45     588     -1.12       South Carolina     46     560     -1 20       Georgia     47     492     -1.39	North Carolina	•	1 '. 1	
Kentucky     39     663     —0 91       Virginia     40     653     —0 94       Texas     41     650     —0.95       Florida     42     623     —1.02       Rhode Island     43     604     —1 07       Mississippi     44     602     —1 08       Alabama     45     588     —1.12       South Carolina     46     560     —1 20       Georgia     47     492     —1.39	I ennessee	37		
Virginia     40     653     -0 94       Texas     41     650     -0.95       Florida     42     623     -1.02       Rhode Island     43     604     -1 07       Mississippi     44     602     -1 08       Alabama     45     588     -1.12       South Carolina     46     560     -1 20       Georgia     47     492     -1.39				-
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Florida     42     623     -1.02       Rhode Island     43     604     -1 07       Mississippi     44     602     -1 08       Alabama     45     588     -1.12       South Carolina     46     560     -1 20       Georgia     47     492     -1.39	Tarra	•		-0 94
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Arkansas			492	
	rurkansas	48	485	-I 4I

<sup>\*</sup> Source: U.S. Off. Educ., Bunnial Survey of Education, 1930–1932, chap. i, p. 107.

Mean annual salary (based on means of the 48 states), \$994; standard deviation, \$361.66; U.S. mean annual salary (including District of Columbia), \$930.

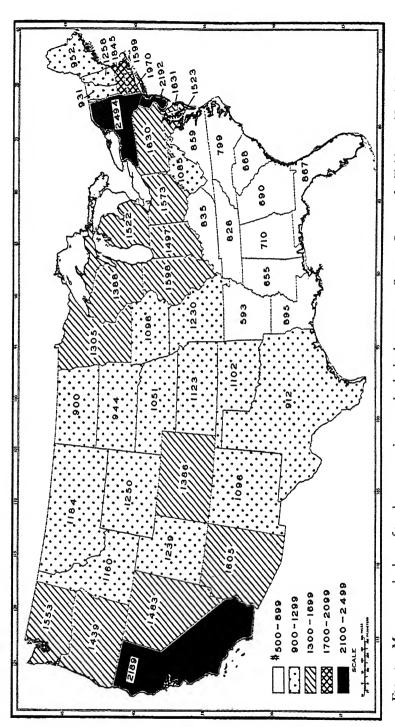


Fig. 97.—Mean annual salary of teachers, supervisors, and principals, 1931-32. Source: Same as for Table 79. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

If a comparison on this basis is made between Leslie County, Kentucky, and San Francisco County, California, both representing extremes, it appears that the ratio of children in the former is practically five times greater than in the latter. For each 1,000 adults in the former there are 560 children, while in the latter the number of children drops to 117.

# NUMBER OF ONE-ROOM SCHOOLS

In spite of all the effort that has been made to improve the status of the rural school through school consolidation, state aid to schools, and highway development, there were still in

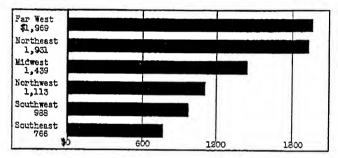


Fig. 98.—Regional summary of mean annual salary of teachers, supervisors, and principals, 1931-32.

the United States 143,445 one-room schools in 1932.<sup>5</sup> For educator and librarian alike, they still constitute a most difficult educational problem. Figure 96 shows their total number by states with their high concentration in New York and Pennsylvania and the Upper Mississippi and Great Lakes sections. Library service to such schools obviously constitutes a special problem, the solution of which seems necessarily to rest upon some form of county service provided co-operatively through a county library or through the office of the county superintendent of public instruction. The regional library might also be considered as having a contribution to make in providing

<sup>&</sup>lt;sup>5</sup> U.S. Office of Education, *Biennial Survey of Education in the United States*, 1930–1932, Bulletin 1933, No. 2 (Washington: Government Printing Office, 1935), chap. i, p. 70.

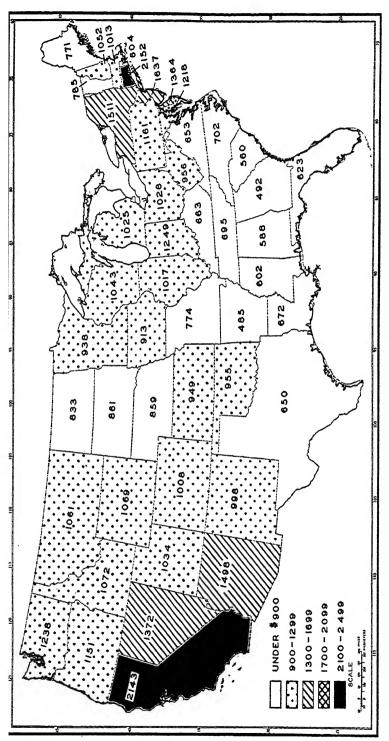


FIG. 99.—Mean annual salary of rural teachers, supervisors, and principals, 1931–32. Source: Same as for Table 80. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

service of this character. The existence of so many one-room schools accounts in part for the lack of libraries in the large per cent of schools reported in chapter vi.

# DIFFERENCES BETWEEN URBAN AND RURAL SALARIES

Two other general factors which require further analysis are the differences between urban and rural school salaries and differences in expenditures for schools for whites and Negroes in those states in which separation of races is mandatory. Two sets of data relating to differences in salaries are presented in Tables 79 and 80 and Figures 97, 98, 99, and 100.

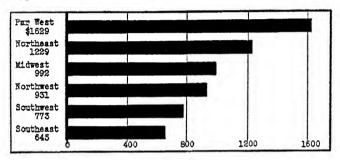


Fig. 100.—Regional summary of mean annual salary of rural teachers, supervisors, and principals, 1931–32.

# DIFFERENCES IN SUPPORT OF WHITE AND NEGRO SCHOOLS

The disparity between support for white and Negro schools in those states in which the separation of the races is mandatory has frequently been noted. Figure 101, reproduced from a recent publication issued by the Julius Rosenwald Fund, entitled School Money in Black and White, graphically portrays this difference. According to this publication, the average annual school expenditure for every pupil throughout the nation in 1930 was \$99.00; for white children in the South it was \$44.31; for Negro children, \$12.57. Georgia spent an average of \$33.42 for each white pupil, and \$6.38 for each Negro. The average expenditure for Negroes in Mississippi dropped still lower to

<sup>&</sup>lt;sup>6</sup> Julius Rosenwald Fund, School Money in Black and White (Chicago: Julius Rosenwald Fund, 1935).

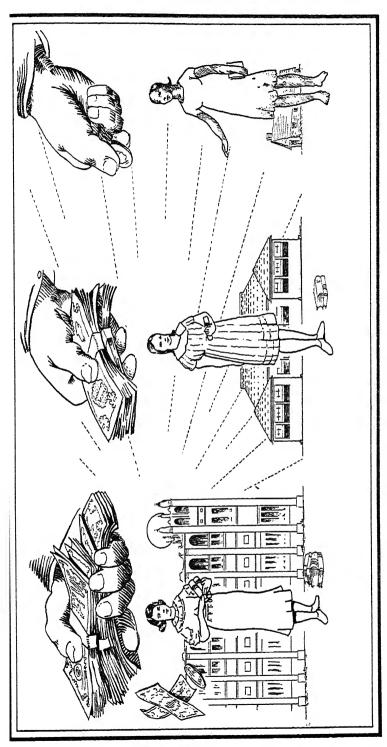


Fig. 101.—School money in black and white. Source: Julius Rosenwald Fund, School Money in Black and White (Chicago: Julius Rosenwald Fund, 1935).

TABLE 81\* MEAN ANNUAL COST OF EDUCATION PER CAPITA Population, 1931-32

State	Rank	Cost	Standard Score
New York	1	\$26 85	I 78
Delaware	2	26.40	1 70
New Jersey	3	26 34	1 69
Nevada	4	26 23	1 67
Wyoming	5	25 35	1 52
California	6	25 19	I 49
Colorado	7	22 64	1 05
Montana	8	21 94	0 93
Arizona	9	20 56	0 69
Connecticut	10	20 42	0 66
Rhode Island.	11	20 25	0 64
South Dakota	11	20 25	0 64
Michigan	13	20 11	0 61
Massachusetts.	14	20 05	0 60
North Dakota .	15	19 61	0 52
Washington.	16	19 32	0 47
Idaho	17	19 30	0 47
Minnesota	18	19 20	0 45
Pennsylvania.	19	18 34	0.30
Ohio	20	18 20	0.30
Illinois.	21	18.03	0 25
Utah	22	18 01	0 25
Iowa	23	18 ∞	1
Nebraska	23 24	17 86	0 25
Wisconsin .		•	0.21
Indiana	25 26	17 80	1
Kansas	27	17 70	0 19
Oregon	28	17.63 17.61	0 18
New Mexico .		•	i e
Maryland	29	15 71	-0 15
New Hampshire	30	15 61	-0 17
West Virginia.	31	15 25	-0 23
Missouri	32	14 50	-0.36
Texas	33	13 69	-0 50
Maine.	34	13 21	-0.59
	35	13.07	-0 61
Vermont	36	12 97	-0 63
Oklahoma	37	11.80	-0.83
Florida	38	11.14	-0.95
Louisiana	39	9.65	-1.20
North Carolina	40	9.28	-1 27
Virginia	41	9.11	-1.30
Mississippi	42	8.85	-1.34
Tennessee.	43	8.31	-1.44
Kentucky	44	8.25	-1 45
South Carolina	45	7.16	-ı 6 <sub>4</sub>
Alabama	46	6 78	-1 70
Georgia	47	6.59	-1.74
Arkansas	48	6.24	-1.80

<sup>\*</sup> Source: U.S. Off. Educ, Biennial Survey of Education, 1930-1932, chap. i, p. 91.

Mean cost per capita (based on means of the 48 states), \$16.59; standard deviation, \$5.76, U.S. median, \$17.83; U.S. mean cost per capita (including District of Columbia), \$17.31.

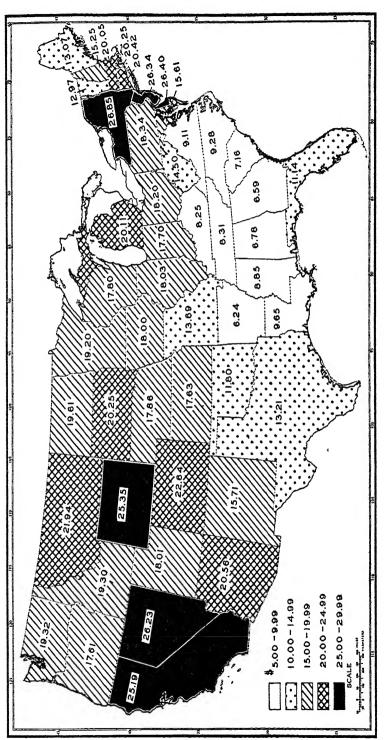


Fig. 102.—Mean annual cost of education per capita population, 1931–32. Source: Same as for Table 81. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

\$5.45. The mean annual per capita cost per total population as contrasted with the mean annual expenditure per pupil, is shown in Table 81 and Figures 102 and 103. The range is from \$26.85 in New York to \$6.24 in Arkansas. The data fail to indicate the differences in per capita costs for schools by races. If they were analyzed on this basis, however, a difference unfavorable to Negroes would be shown in those states in which the separation of school facilities is mandatory.

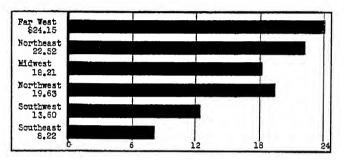


Fig. 103.—Regional summary of mean annual cost of education per capita population, 1931-32.

#### MANDATORY VERSUS PERMISSIVE SUPPORT

In concluding this chapter dealing with the status of the school as contrasted with that of the library, reference should again be made to the fundamental difference of attitude held by the state as to school and library support. Except in Michigan, state support of libraries is not mandatory, but permissive; and although the state has, in many instances, aided directly in both promotion and support, the principle of responsibility for the support of a state-wide system of public libraries has not yet been accepted. In the case of the school, support is not only mandatory, but equalizing funds are usually provided to guarantee a certain quality of school service. In North Carolina, for example, the support of an eight-month school throughout the entire state is borne by the state. Local communities can extend the length of the term or increase the amount paid for salaries fixed by the state only upon compliance with regulations administered by a state educational commission.<sup>7</sup> The differences in school and library coverage and quality of service may, therefore, be largely attributed to this one important fact.

#### SUMMARY

The data in this chapter reveal a decided parallelism as well as several significant differences in the relative development of libraries and schools throughout the nation. In general, the two indices of development seem very similar. Twenty-two states are in the same interval. In nineteen the variation is only one interval; in six states it is two, and in one state three. In the Far West libraries and schools alike are above the national average, while in the Southeast and Southwest, with only one exception in fifteen states, both are below. In these three regions, and throughout the country generally, the map of educational development presents a striking resemblance to that of the growth of libraries. Both schools and libraries reflect the impact of high per cents of illiterates and of persons 5-17 years of age in the population, of one-room school houses, and of the disparity in support of facilities provided for two races.

Over against this parallelism, however, must be noted the fact that illiteracy, the one-room school, and the disparity in support of institutions for Negroes affect the maintenance of adequate libraries more adversely than they affect schools. In the case of schools the state requires provision to be made for their support, whereas, the provision of libraries is permissive. The state sees to it that instruction of a given quality is furnished to all persons within certain age limits, irrespective of their place of residence or economic status. The library, on the contrary, may be maintained by the locality, provided the locality wishes to support it. In this significant respect the importance of the library as an educational agency has not received the recognition and support universally accorded the school.

<sup>&</sup>lt;sup>7</sup> North Carolina General Assembly, *Public Laws and Resolutions* (Charlotte: Observer Printing House, Inc., 1933), chap. 282, sec. ix, p. 413.

# CHAPTER XII

# ADULT EDUCATIONAL AGENCIES AND OTHER CULTURAL AND RECREATIONAL ORGANIZATIONS

HE nineteenth century witnessed the rise and growth in the United States of the lyceum, the woman's club, the university extension movement, the art museum, and the public library. Within that period they became a part of the nation's cultural inheritance. The twentieth century has added to the list of these organizations and institutions, has tremendously increased their membership, and also their range in both formal and informal educational activities.

Three major influences have contributed to this development in the field of adult education since 1900. The World War was the first. At that time the whole United States awoke to the consciousness that there was a world in which it had to play an entirely new part, and about which it was abysmally ignorant. The depression has served as a second great schoolmaster. No section of the country, no population group, no institution, no industry failed to be affected by this major disaster. All have been forced to readjust their thinking in order to meet the new situations in which they have found themselves. During these two periods the automobile, the moving picture, the radio, the magazine, and the daily newspaper have accelerated the communication of ideas, thus bringing the entire population into a great consolidated school, as it were, through which common understanding has increasingly spread.

In this situation there has come into being a new agency, the American Association for Adult Education. For twelve years it has enabled individual organizations and institutions to express their common interest in many phases of the changing civilization to which they belong, and to formulate pro-

cedures aimed toward a better understanding of the environment in which they have found themselves. The association has served them as an informal co-ordinator, it has expressed for them a general philosophy, or it has supplied them with a body of common objectives which has enhanced their individual and collective effectiveness.

The purpose of this chapter is not to consider the events which have given the nation this new point of view; nor is it to describe the organizations and institutions which have striven in various ways to understand more fully some aspect of the present social order or of the national cultural pattern. On the contrary, the purpose is to show with a minimum of comment, or by tables and charts alone, how certain of these organizations are distributed throughout the United States and what relationship their distribution bears to that of the library which strives to serve them.

The library has always been aware of its direct relationship to schools. Its service to them, either directly, or through cooperative or contractual agreements, has been one of its most distinctive features. As has been shown in the preceding chapter, it receives best support where schools are well supported, and in recent years there has been a consistent effort on the part of both teachers and librarians so to organize library resources as to make them significant in the attainment of the school's objectives.

That there has been a corresponding relationship between the library and other organizations having educational or cultural aims is true, though the evidences have possibly not been so numerous or so apparent. There has also been a difference in the way in which the library has attempted to serve such organizations. In the case of the school, the library undertakes to give service by making materials available to such units as schools, classrooms, or groups of teachers, as well as to individual students. But in the case of other organizations the primary tendency has been to meet the demands of individual members rather than the demands of the organizations as uni-

fied groups. The contractual relationship, consequently, has been effected only occasionally between the library and the adult educational council of the city, the federated or individual women's club, or the parent-teachers association, for example.

In two instances, however, the library has been very directly associated with such organizations and has contributed largely to the effectiveness of both. The American Association of Adult Education, which was organized in 1926, is one of these. At the time of this association's organization, librarians had long been engaged in promoting informal education through reading lists and assistance to readers interested in special subjects of study. A number of libraries had established the position of readers' adviser; others had organized their general service, or certain parts of it, by departments on a subject-matter basis; and the American Library Association had begun the publication of its notable "Reading with a Purpose" series.

Upon the establishment of the former association, the American Library Association appointed a Board on Adult Education and the Library, and a Committee on Readable Books. Since then, libraries in general have increasingly undertaken to serve adult educational organizations. In a number of cities the library has furnished headquarters for the local council on adult education, some member of the staff has served as its secretary, library rooms have been made available for the meetings of study groups, libraries have sent staff members to meetings to supply books and book lists, special shelves of reference material have been provided, talks concerning books and library resources on special subjects have been broadcast, and in many other ways the library has consciously met the requirements of organized groups as well as the demands of individual members.

<sup>&</sup>lt;sup>1</sup> The activities of this organization are so wide in their extent and so varied in their nature that no attempt at description is undertaken here. For admirable statements concerning the organizations see: American Association for Adult Education, Handbook of Adult Education in the United States, 1934; 1936 (New York: American Association for Adult Education, 1934; 1936); and M. A. Cartwright, Ten Years of Adult Education (New York: Macmillan Company, 1935).

TABLE 82\*

Enrolment per 10,000 Population in Adult Education Classes
Organized under the Public Education System, 1933

		Enroly		
	70	ENROLMENT		Standard
State	RANK	Total	Per 10,000 Population	Score
California .	I	316,603	557.7	4 68
Kentucky	2	100,000	382.5	2 99
Delaware	3	5,959	250.0	1.70
Wisconsin .	4	58,869	200.3	1.23
Massachusetts		82,708	194.6	1 17
Rhode Island	5 6	12,490	181.7	1 05
Pennsylvania	7	174,000	180.7	1 04
New York	8	225,510	179 1	1 02
New Tersey	9	49,015	121 3	0 46
Connecticut	10	16,440	102 3	0 28
Ohio	11	62,313	93.8	0 20
Maryland	12	14,586	89.4	0 16
Illinois	13	67,074	87.9	0.14
Michigan	-3 I4	38,524	79.6	0 06
Indiana	15	21,952	67.8	-0.05
Missouri	16	20,537	56.6	-0 16
Louisiana	17	11,014	5 <sup>2</sup> 4	-0.20
South Carolina	18	8,999	51.8	-0 2I
Iowa	19	11,382	46 I	-o 26
Maine	20	3,598	45.I	-0.27
New Hampshire	21	2,014	43.3	-0 29
Wyoming	22	912	40.4	-0.32
Colorado	23	3,964	38.3	-0.34
Oregon	24	3,017	31.6	-0.40
Kansas	25	5,720	30.4	-0 4I
Florida.	26	4,401	30.0	-0.42
Arizona	27	1,278	29.3	-o 43
Georgia	28	8,141	28.0	-0.44
Virginia	29	6,244	25 9	-0 46
Utah	30	1,204	23.7	-0 48
Texas	31	12,227	21.0	-0 51
Alabama	32	5,178	19.6	-0.52
New Mexico	33	776	18.3	-0.53
Washington	34	2,580	16.5	-0.55
Minnesota	35	3,865	15.1	-0.56
Arkansas	36	2,255	12.2	-0.59
Vermont	37	394	10.9	-0 60
Nevada	38	92	10.1	-0.61
Montana	39	434	8.1	-0.63
West Virginia	40	1,351	7.8	-o 63
South Dakota	41	524	7.6	-0.63
Tennessee	42	1,913	7.3	-0.64
Nebraska	43	899	6 5	-0 65
Oklahoma	44	1,455	6.1	-0.65
North Dakota	45	339	5.0	-0.66
Idaho	46	176	4.0	-0.67
North Carolina	47	712	2 2	-0.69
Mississippi	48	188	0.9	-0.70
rrr		1		l

\* Source: Compiled from Amer. Assoc. Adult Educ., Handbook of Adult Education in the United States, 1934 (N.Y.: Amer. Assoc. Adult Educ., 1934), pp. 161-74.

Mean per 10,000 population (based on means of the 48 states), 73.3; standard deviation, 103.47 U.S. total, 1,389,902; U.S. enrolment per 10,000 population (including District of Columbia), 113 21.

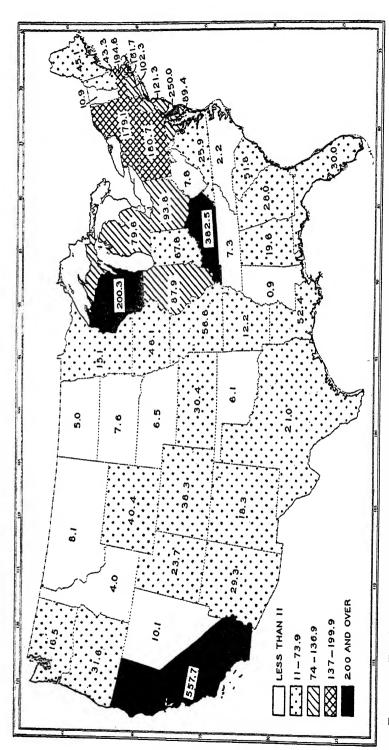


Fig. 104.—Enrolment per 10,000 population in adult education classes organized under the public education system, 1933. Source: Same as for Table 82. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

The second organization with which the library has been very closely connected is the National Federation of Women's Clubs, to which, in hundreds of instances, libraries owe their establishment and much of their continued support. The interest of the clubs has been so great, and their support so constant, that in chapter xiv they are listed among the causal factors which have contributed to the extension of library service in America.

The relationship between the library and other organizations has not been so direct, but it has been nonetheless extensive and real. Where certain kinds of clubs, professional organiza-

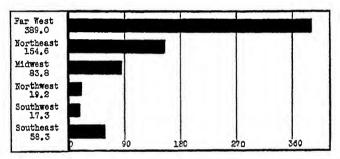


Fig. 105.—Regional summary of enrolment per 10,000 population in adult education classes organized under the public education system, 1933.

tions, and study groups are strongest, the library, likewise, has been correspondingly well developed and renders its best service. In a sense, the library may well be regarded as an index of the status of a community's educational and cultural organization.

# ADULT EDUCATION CLASSES ORGANIZED UNDER THE PUBLIC SCHOOL SYSTEM

For a number of years the public schools in many parts of the country have enrolled students in evening and other special classes, outside their regular day program. The studies pursued have been largely of a vocational nature. Table 82 and Figures 104 and 105 show in which states and regions this enrolment is heaviest. The data are for 1933, before the effects of the depression on the enrolment in high schools and in the emergency adult

TABLE 83\*

Enrolment per 1,000 Population in F.E.R.A. Education Programs, March, 1936

		STUDENTS E	Standard	
State	RANK	Total	Per 1,000 Population	Score
Florida	I	47,844	32 6	2.45
Washington	2	50,852	32 5	2 44
Georgia	3	87,∞9	<b>2</b> 9 9	2.10
Mississippi	4	51,149	25 4	1.51
Vermont	5	9,118	25.3	1.50
Utah	5 6	12,414	24 4	1.38
Idaho	7	10,371	23.3	I.24
Colorado	8	23,844	23.1	1.20
Kentucky	9	58,496	22 4	1.12
Louisiana	ΙÓ	43,989	20.9	0.93
Virginia	II	44,012	18 2	0 57
Rhode Island	12	11,617	16 9	0.40
Wyoming	13	3,782	16 7	0.38
South Carolina.	14	28,943	16 6	0.37
Missouri	15	59,814	16 5	0.35
Ohio	16	106,129	16 0	0 29
West Virginia.	16	27,630	16 0	0 29
Minnesota.	18	38,382	15 0	0.16
Arkansas	19	27,542	14.9	0.14
New Mexico	20	6,131	14.5	0.09
Arizona	21	5,574	12.8	-0.13
South Dakota	22	8,730	12.6	-0.16
37 1 75 1	23	8,481	12.5	-0.17
North Dakota Pennsylvania	23	120,394	12.5	-0.17
Kansas	25	22,622	12.5	-o 23
Tennessee	26	30,222	11.6	-0.23 -0.29
		1,046	11.5	-0.29 -0.30
^	27 28		II.4	
Oregon	29	10,917 132,239	10.5	-0 31 -0.43
	-			,
Nebraska	30	14,276 4,803	10 4	-0 44 -0.46
Massachusetts	31 32		10.3	-0.40 -0.56
Texas	-	40,496 51,206	9.5 8.8	-0.30 -0.65
North Carolina	33		8.6	-0.03 -0.68
California	34	27,268	8.5	-0.69
XT Y	35 26	48,386		,
TTP	36 27	33,443	8.3	-0.72
	37	23,847	8.1	-0.74
Maryland Illinois	38	11,897	7.3	-0.85
Indiana	39	54,542	7.1 6.8	-0.87
A1.1.	40	22,013		-0.9I
MC L.	41	17,783	6.7	-o 93
т	42	26,742	5-5	-1.08
Maine	43	10,742	4-3	-1.24
	44	2,677	3.4	— <u>1</u> 36
MontanaOklahoma	45	1,681	3.1	-1.40
Connecticut	46	6,170	2.6	-1.46
Connecticut	<b>4</b> 7	3,188	2.0	-1.54
				1

\* Source: Correspondence from U.S. F.E.R.A., Div. of Statistics, 1936.

Mean per 1,000 population (based on means of the 47 states), 13.8; standard deviation, 7 66, U.S. total, 1,490,635; U.S. enrolment per 1,000 population (including District of Columbia), 12.14.

Delaware had no program.

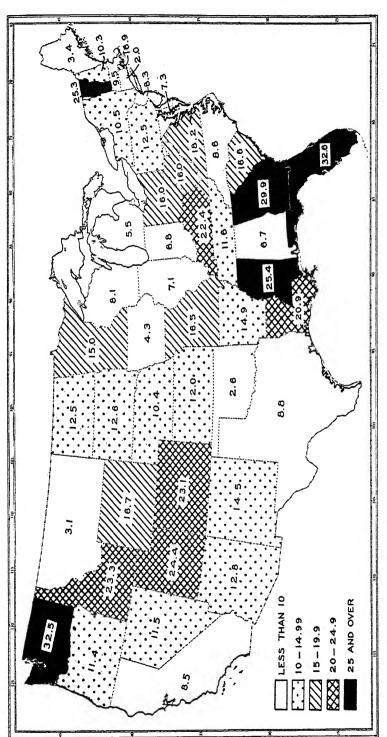


Fig. 106.—Enrolment per 1,000 population in F.E.R.A. education programs, March, 1936. Source: Same as for Table 83. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

educational programs of the federal government changed what until then had been the normal situation. The Far West stands high above the other regions, with California emphasizing this kind of instruction in a marked manner.<sup>2</sup> The range of students enrolled per 10,000 population is from 557.7 in California to 0.9 in Mississippi, or a ratio of 619 to 1.

#### FEDERAL EMERGENCY ADULT EDUCATION PROGRAMS

When the effects of the depression became most pronounced in 1933, the federal government inaugurated an extensive program of adult education which at various times since has

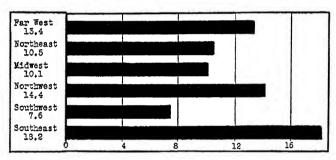


Fig. 107.—Regional summary of enrolment per 1,000 population in F.E.R.A. education programs, March, 1936.

simultaneously involved as many as 1,500,000 people and 40,000 teachers. The program, when organized under the supervision of the public schools, included six forms of education: (1) illiteracy education, (2) general adult education, (3) parent education, (4) workers' education, (5) vocational education, and (6) vocational rehabilitation. It differed from the regular program of the schools in that the subjects were much less vocational and the teachers were selected on the basis of need of relief.<sup>3</sup> The number and distribution of persons enrolled in

<sup>&</sup>lt;sup>2</sup> For full descriptions see: J. W. Studebaker, "Adult Education under Public School Auspices," American Association for Adult Education, *Handbook*, 1936, pp. 167–69; E. deS. Brunner and Irving Lorge, *Rural Trends in Depression Years* (New York: Columbia University Press, 1937), pp. 204–48.

<sup>&</sup>lt;sup>3</sup> E. M. Danton, "The Federal Emergency Adult Education Program," American Association for Adult Education, *Handbook*, 1936, pp. 28-53; Brunner and Lorge, op. cit., chap. ix.

classes organized in this way is shown in Table 83 and in Figures 106 and 107. The Southeast was the recipient of the greatest amount of assistance from this source. The most significant facts connected with the program have been (1) that the number of adult students suddenly enrolled in this way equaled or exceeded the total enrolment of all the colleges and universities in the country; (2) that the teachers were employed on the basis of their need for relief rather than for their proficiency as teachers of adults; (3) that the nature and range of the courses offered were very much more liberal and extensive than the more vocational program of the public school; and (4) that many of the teachers thus employed developed new methods and materials for the effective teaching of adults.

## ADULT EDUCATION ACTIVITIES OF THE U.S. DEPARTMENT OF AGRICULTURE

The federal government has long carried on through its widespread agricultural extension service an extensive program of education in which, in 1936, 8,732 trained home and farm demonstration and other agents were engaged. In addition to these leaders, there are 400,000 or more voluntary workers involved in the service, who have been trained to direct meetings and lead discussions concerning various aspects of rural life. Those states and regions which are most rural have naturally the greatest number of these workers. Altogether it is estimated that 6,000,000 people are involved in the educational program of this service.

Prior to the depression, this service was concerned primarily with agricultural, vocational, and domestic subjects; and the land-grant colleges and farm and home demonstration agents who directed it depended largely upon publications of the U.S. Department of Agriculture, the land-grant colleges, and state departments of agriculture to supplement the educational as-

<sup>&</sup>lt;sup>4</sup> U.S. Office of Cooperative Extension Work, "Number of Extension Workers, February 29, 1936" (Planographed; Washington: U.S. Office of Cooperative Extension Work, 1936).

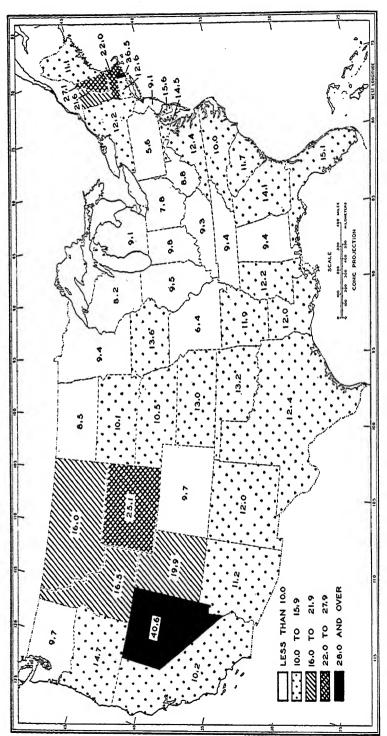


Fig. 108.—U.S. Cooperative Extension workers per 100,000 rural population, 1933. Source: Same as for Table 84. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

TABLE 84\*
U.S. Cooperative Extension Workers per 100,000 Rural
Population, 1933

	<del>7</del>			
		Wor	KERS	
State	Rank	Total	Per 100,000 Rural Population	Standard Score
Nevada	1	23	40 6	3 95
Rhode Island	2	19	36 5	3 35
New Hampshire	3	52	27 I	1.98
Wyoming	4	39	25.1	1.69
Massachusetts	5 6	92	22 0	1 23
Vermont	6	52	21.6	1.17
Utah	7	48	19.9	0 93
Idaho	8	52	16.5	0 43
Montana	9	57	16.0	0 36
Delaware	10	18	15.6	0.30
Florida	II	107	15.1	0.22
Oregon	12	68	14.7	0 17
Maryland	13	95	14.5	0 14
Georgia	14	284	14.1	0 08
Iowa	15	203	13.6	0.∞
Oklahoma	16	208	13.2	-0.05
Kansas	17	150	13.0	-o o8
Connecticut	18	60	126	-o 14
Texas	19	426	12 4	-0.17
Virginia	19	203	12 4	-0 17
New York	21	252	12 2	-0 20
Mississippi	21	204	12.2	-0 20
Louisiana	23	152	12.0	-0 23
New Mexico	23	38	12 0	-0.23
Arkansas	25	175	11 9	-0.24
South Carolina	26	160	11.7	-0.27
Arizona	27	32	11.2	-0.35
Maine	28	53	II.I	—o 36
Nebraska	29	94	10.5	-0.45
California	30	155	10.2	-0.49
South Dakota	31	57	10.1	-0 51
North Carolina	32	<sup>2</sup> 37	10.0	-0.52
Indiana	33	142	9.8	-0.55
Washington	34	66	9.7	-0.57
Colorado	34	50	9.7	-0.57
Illinois	36	189	9 5	-0.60
Alabama	38	178	9.4	-0.61
Tennessee	38	162	9.4	-0.61 -0.61
Minnesota	38	123 168	9.4	-0.61 -0.62
Kentucky	40		9.3	-0.62 -0.65
Michigan	4I	140	9.1	-0.65 -0.65
New Jersey	4I	64	9.1 8.8	
West Virginia	43	109	8.5	-0.70 -0.74
North Dakota	44	48	8.5	-0.74 -0.70
Wisconsin	45	113 166	7.8	-0.79 -0.84
Ohio	46			-1.05
Missouri	47	113	6.4 5.6	-1.03
Pennsylvania	48	173	3.0	1.1/

<sup>\*</sup>Source: U.S. Dept. Agric., Yearbook of Agriculture: 1934 (Wash: Govt. Print. Off., 1934), p. 763.

Mean per 100,000 rural population (based on means of the 48 states), 7.1; standard deviation, 4.2;
U.S. total, 5,869; U.S. workers per 100,000 rural population (including District of Columbia), 10 9.

The total for February 29, 1936, was 8,732.

pects of their work. The enactment of legislation in recent years by the federal government for the stabilization of agriculture, for the relief of drought and flood areas, and for soil conservation, has extended the scope of this service. The establishment of forums and radio broadcasts for farmers, and the provision of other means of promoting study and discussion have likewise greatly broadened the interests of farm populations and have stimulated their demand for books and other library materials. The federal emergency adult education program has also tended to emphasize interest in cultural subjects such as art, music, drama, parent education, etc., as well as in vocational subjects. Where county libraries are established, close co-operation between this service and libraries has been maintained. But, unfortunately, there has not been available public library service which is well adjusted to the support of this broadened program of activities. Of the 2,896 counties which have agricultural extension agents, 268 (9 per cent), have complete library service; 1,493 (51 per cent), partial; and 1,135 (40 per cent), no service. Of the 1,679 counties which have home demonstration agents, 194 (11 per cent), have complete library service; 854 (51 per cent), partial; and 631 (38 per cent), none.5 Particularly noticeable, also, is the absence of library specialists from the list of specialists engaged in directing the service in the various states.

#### OTHER ADULT EDUCATION AGENCIES

No effort is made here to indicate the number of adult education agencies which exist in the United States at the present time or to describe the activities in which they are engaged. Their number, as indicated in the *Handbook for Adult Education* for 1936, runs into the hundreds, and the total number of adults engaged in one form or another of adult education is estimated at 22,000,000.6 It is sufficient for the purposes of this study to

<sup>&</sup>lt;sup>5</sup> American Library Association, Special Committee on Federal Relations, "Federal Relations to Libraries" (MS in preparation), p. 51.

<sup>6</sup> Cartwright, op. cit., p. 60.

TABLE 85\*

Members per 10,000 Population Paying Dues to the National Federation of Women's Clubs, 1935

	_	Мемя	ERS	Cm.,-n.
State	RANK	Total	Per 10,000 Population	Standard Score
New Hampshire	I	7,823	168.1	3 67
Delaware	2	3,147	132 0	2 60
Massachusetts	3	42,203	99.3	I 63
Iowa	4	24,486	99.I	I 62
Nebraska	5	12,723	92.3	I 42
Montana	6	4,331	80.5	1.07
Vermont	7	2,788	77.5	0 98
Wyoming	ź	1,525	67 6	0 69
Arizona	9	2,911	66.8	0 67
Nevada	10	585	64.2	0 59
Kansas	11	12,023	63.9	0 58
New Mexico	12	2,659	62.8	0 55
Colorado	13	6,107	58.9	0 43
North Dakota	-3 I4	3,795	55.7	0 34
Wisconsin	15	14,339	48.7	0 13
Connecticut	16	7,670	47.7	0 10
Idaho	17	2,089	46.9	0 08
Washington	18	7,321	46.8	0 07
West Virginia	19	8,028	46 4	0 06
Indiana	20	13,350	41.2	-0 09
Illinois	21	31,301	41.0	-0 10
Florida	22	5,782	39 3	-0 15
Michigan	23		38.8	-0 16
Oregon	23 24	18,790	38.3	-o 18
	•	1	1 -	-0 18 -0 2I
	25 26	21,224 8,681	37-3	-0 21 -0 25
** 1		1 '	35.8	,
South Dakota	27 28	1,758	34 6	-0 29
4		2,078	29.9	-0 43
	29	7,881	<sup>29</sup> 7 28.6	-o 43
Oklahoma	30	6,862		-0 47
Maryland	31	4,583	28.0	-0 48
Missouri	32	9,530	26.2	-0 54
Kentucky	33	6,507	24.8	-o 58
Mississippi	34	4,885	24 3	-o 59
Texas	35	13,602	23.3	-o 62
New Jersey	36	9,023	22.3	-o 65
Ohio	37	14,141	21 2	<b>−</b> o 68
Pennsylvania	38	19,151	19 8	<b>−</b> 0 73
Georgia	39	5,566	19 1	-o 75
Rhode Island	40	1,304	18 9	-o 75
Maine	4 <sup>I</sup>	1,328	16.6	-0 8 <sub>2</sub>
Tennessee	42	4,322	16 5	-0 82
Arkansas	43	2,667	14 3	−o 89
Minnesota	44	3,071	11 9	-0.96
Louisiana	45	1,481	70	-1.10
New York	46	7,807	6.2	-1.13
North Carolina	46	1,989	6.2	-1 13
South Carolina	48	495	2.8	I 23

\* Source. Correspondence from Natl. Fed. of Women's Clubs.

Mean per 10,000 population (based on means of the 48 states), 44 3, standard deviation, 32 76; U.S. total 400,527, U.S. members per 10,000 population (including District of Columbia), 32 62.

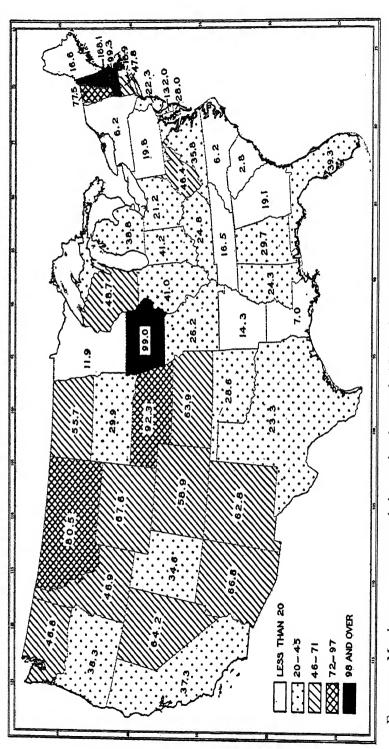


Fig. 199.—Members per 10,000 population paying dues to the National Federation of Women's Clubs, 1935. Source: Same as for Table 85. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

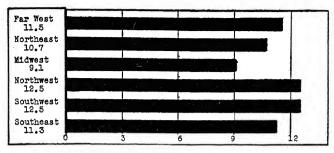


Fig. 110.—Regional summary of U.S. Cooperative Extension workers per 100,000 rural population, 1933.

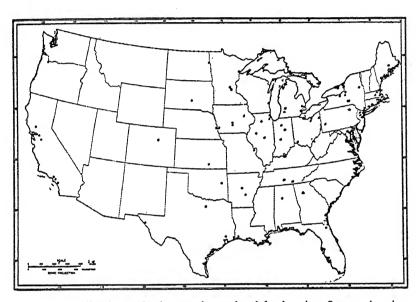


FIG. 111.—Libraries conducting experiments in adult education. Source: American Association for Adult Education, *Handbook of Adult Education in the United States*, 1936 (New York: American Association for Adult Education, 1936), pp. 77–102. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

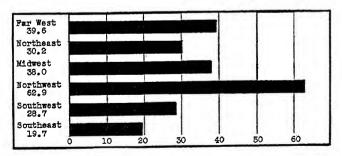
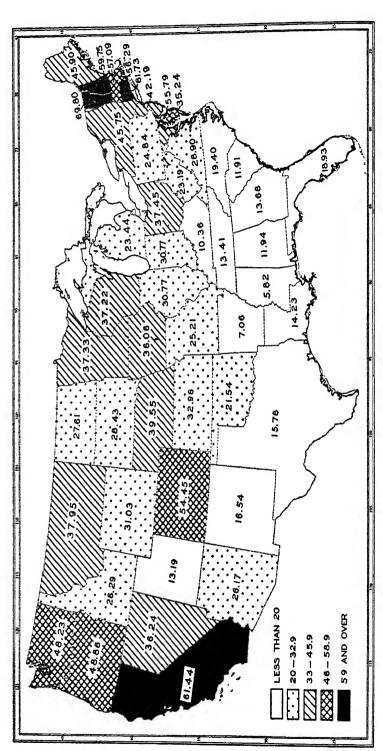


Fig. 112.—Regional summary of members per 10,000 population paying dues to the National Federation of Women's Clubs, 1935.



Fio. 113.—Average membership per 1∞,∞ population in Phi Beta Kappa, American Association of University Women, and American Association of University Professors, 1935. Source: Same as for Table 86. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

TABLE 86\*

Average Membership per 100,000 Population in Phi Beta Kappa,
American Association of University Women, and American Association of University Professors, 1935

State	Rank	Average N per Org.	Tembership Anization	STANDARD	
		Total	Per 100,000 Population	Score	
Vermont	1	251	69 80	2 29	
Connecticut	2	992	61 73	1.80	
California	3	3,488	61.44	1.78	
New Hampshire	4	278	59 75	ı 68	
Massachusetts	5	2,426	57.09	1.51	
Rhode Island	6	387	56.29	I 46	
Delaware	7	133	55.79	I 43	
Colorado	8	564	54.45	1.35	
Oregon	9	466	48.86	1.01	
Washington	10	754	48.23	0 97	
Maine	11	366	45.90	0.83	
New York	12	5,759	45.75	0.82	
New Jersey	13	1,705	42 19	0 60	
Nebraska	14	545	39 · 55	0 44	
Montana	15	204	37 95	0.34	
Ohio	16	2,489	37 - 45	0.31	
Minnesota	17	957	37 - 33	0 30	
Wisconsin	18	1,094	37.22	0 29	
Nevada	19	33	36.24	0.23	
Iowa	20	891	36.06	0 22	
Maryland	21	575	35 <sup>24</sup>	0 17	
Kansas	22	620	32.96	0.03	
Wyoming	23	70	31 02	-0.09	
Illinois	24	2,348	30 77	<del>-</del> 0.10	
Indiana	25	981	30.29	-0.13	
Virginia	26	7∞	28.90	-0.22	
South Dakota	<del>2</del> 7	191	28.43	-0.25	
North Dakota	28	188	27.61	-o 30	
Idaho	29	117	26.29	-0.38	
Arizona	30	114	26.17	-0.39	
Missouri	31	915	25.21	-0.44	
Pennsylvania	32	2,392	24.84	-0.47 -0.55	
Michigan	33	1,135	23.44 23.19	-0.55 -0.57	
West Virginia	34	401 516	21.54	-0.67	
Oklahoma	35	615	19.40	-0.80	
North Carolina	36	278	18.93	-0.83	
Florida	37 38	70	16.54	-0.98	
	Ŭ	919	15.78	-1.02	
Texas	39 40	299	14.23	-1.12	
o ·	4I	398	13.68	-1.15	
Georgia	42	351	13.41	-1.17	
Utah	43	67	13.19	-1.18	
Alabama	43 44	316	11.94	-1.26	
South Carolina	45	207	11.91	-1.26	
Kentucky	46	271	10.36	-1.36	
Arkansas	47	131	7 06	-1.56	
Mississippi	48	117	5 82	-1.64	

<sup>\*</sup>Source: Correspondence from ΦBK Socy., A.A.U.W., and A.A.U.P.
Mean per 100,000 population (based on means of the 48 states), 32.44; standard deviation, 16.28; U.S. total, 39,803; U.S. members per 100,000 population (including District of Columbia), 32.42.

show where some of these agencies exist and to indicate the general nature of their relationship to organized library service. Figure 111 is a spot map of a selected number of libraries listed in the *Handbook* of the American Association for Adult Educa-

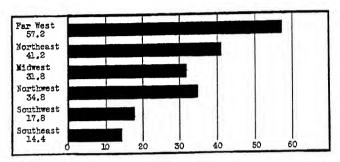


Fig. 114.—Regional summary of average membership per 100,000 population in Phi Beta Kappa, American Association of University Women, and American Association of University Professors, 1935.

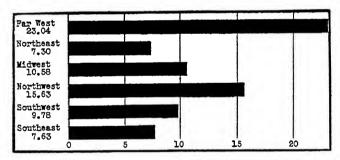


Fig. 115.—Regional summary of membership per 1,000 population in Parent-Teachers Associations, 1932-33.

tion as undertaking special experiments in promoting adult education activities and in serving adult education organizations.<sup>7</sup>

#### OTHER ORGANIZATIONS

The distribution of membership in other organizations to which the library bears varying relationships is shown in Tables 85–90 and in Figures 109, and 112–22.

<sup>&</sup>lt;sup>7</sup> Cf. John Chancellor, "Libraries and Adult Education," American Association for Adult Education, *Handbook*, 1936, pp. 77-102.

TABLE 87\*

Membership per 1,000 Population in Parent-Teachers
Associations, 1932–33

		Мемв	ERS	
STATE	RANK	Total	Per 1,000 Population	Standard Score
Colorado	I	40,564	39 2	4 27
California	2	149,904	26 4	2 36
Vermont	3	8,525	23 7	1 96
Delaware	4	4,509	18 9	1.24
Florida	5	26,570	18 1	1.12
New Jersey	6	66,356	16 4	087
Washington	6	25,615	16 4	087
Oregon	8	15,331	16.1	0 82
Rhode Island	9	10,183	14 8	0 63
North Dakota	10	10,010	14 7	0 61
Iowa	ΙΙ	33,383	13 5	0 43
Nebraska	12	18,167	13.2	0 39
Kansas	13	24,602	13 1	O 37
Missouri	14	45,283	12.5	0 28
Arizona	15	5,293	12 2	0.24
South Dakota	16	8,409	12 I	0 22
Minnesota	17	29,201	11.4	0.12
Texas	17	66,159	11 4	0 12
Ohio	17	75,747	11 4	0 12
Illinois	20	82,050	108	0 02
Georgia	21	30,813	106	-0 OI
Indiana	22	33,992	10 5	-0 02
Tennessee	23	25,836	99	-0 10
Arkansas	23	18,394	99	-0 10
Wyoming	23	2,224	99	-0.10
Montana	26	4,977	9 3	-0 19
Connecticut	27	14,807	92	-0 21
Michigan	28	43,084	8 9	-0.25
North Carolina	29	26,560	8 4	-o 33
Idaho	30	3,579	8 0	-0 39
Kentucky	31	18,5∞	7 I	-0 52
West Virginia	32	11,665	6 7	-o 58
Pennsylvania	33	62,261	6 5	-0 6I
Oklahoma	34	14,953	6 2	-o 66
Utah	35	2,922	5.8	-o 72
New Mexico	36	2,417	5 7	-o 73
Louisiana	36	12,032	5 7	-o 73
Wisconsin	38	16,590	5 6	-o.75
New York	39	67,941	5 4	-0 78
Maryland	39	8,768	5 4	-0 78
New Hampshire	<b>4</b> I	2,437	5 2	-0 81
Alabama	42	13,597	5.1	-o 82
Mississippi	43	8,924	4 4	-0 93
Maine	44	3,370	4 2	-0.96
Massachusetts	45	16,604	3 9	-1.∞
South Carolina	46	6,354	3 7	-1 03
Virginia Nevada	47 48	7,501 35	3 1	-1 12 -1.52

\*Source: Natl. Cong. Parents and Teachers, Proceedings of the Thirty-seventh Annual Meeting, Seattle Washington, May 21-26, 1033, XXXVII (Wash.: N.C.P.T., 1933), 345.

Mean per 1,000 population (based on means of the 48 states), 10.7, standard deviation, 6.70; U.S. total, 1,236,060; U.S. membership per 1,000 population (including District of Columbia), 10.1.

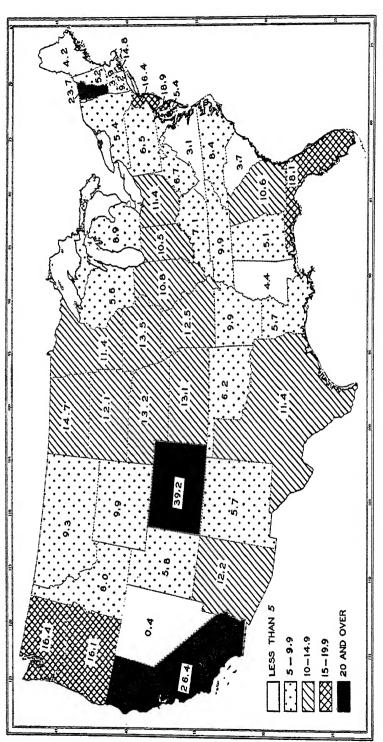


Fig. 116.—Membership per 1,000 population in Parent-Teachers Associations, 1932-33. Source: Same as for Table 87. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

TABLE 88\*

Average Membership per 100,000 Population in Three Business Men's Clubs, 1935

			Aembership anization	2
STATE	RANK	Total	Per 100,000 Population	Standard Score
Nevada	I	220	242	3 62
Wyoming	2	436	193	2.45
Montana	3	918	171	1.92
Utah	4	745	147	1.34
Idaho	5	651	146	1.32
Maine	6	1,056	132	0.98
Florida	7	1,893	129	0 91
Oregon	7	1,226	129	0.91
California	9	6,834	120	0.70
Colorado	9	1,248	120	0 70
Kansas	II	2,235	119	0 67
Washington	12	1,806	116	0 60
Arizona	13	487	112	0.50
New Hampshire	14	517	111	0 48
North Dakota	15	698	103	0 29
Nebraska	16	1,404	102	0 26
Indiana	17	3,224	100	0.22
Texas	18	5,795	99	0 19
Vermont	19	354	98	0.17
Iowa	20	2,386	97	0 14
Oklahoma	21	2,279	95	0 10
Delaware	22	222	93	0 05
New Mexico	23	378	89	-0 05
South Dakota	24	586	85	-0.14
West Virginia	25	1,439	83	-0.19
Wisconsin	26	2,296	78	-o 31
Ohio	27	5,128	77	-0 34
Connecticut	28	1,190	74	-0 41
Virginia	29	1,753	72	-0 46
Michigan	30	3,357	69	-0 53
Massachusetts	31	2,804	66	-0 60
New Jersey	3 <del>2</del>	2,599	64	-0 65
Illinois	33	4,828	63	-0.67
Pennsylvania	34	5,961	62	-0 70
North Carolina	35	1,889	60	-0.74
Arkansas	36	1,069	58	-0 79
Georgia	37	1,662	57	-0.82
South Carolina	37	994	57	-0 82
Minnesota	39	1,340	52	-0.94
Missouri	39	1,897	52	-0 94 -0 96
Maryland	4I	840 336	51	-0 96 -1 ∞
4.1	42 42	1 00	49 48	-1 03 -1 03
	43	1,257	48	-1.03
Kentucky	43	1,255		-1.03
Mississippi	45 46	952	47	-1.13
New York	•	1,149	44	-1.13
Touisiana	47 48	5,434 685	43	-1.15
Louisiana	48	005	33	1.39

\*Source: Correspondence from Rotary, Kiwanis, and Lions' Clubs.

Mean per 100,000 population (based on means of the 48 states), 90.72; standard deviation, 41 69,
U.S. total 89,698; U.S. membership per 100,000 population (including District of Columbia), 73.06.

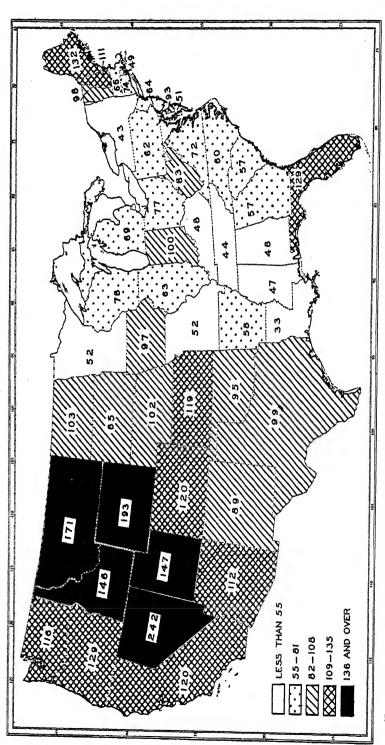


Fig. 117.—Average membership per 100,000 population in three business men's clubs, 1935. Source: Same as for Table 88. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

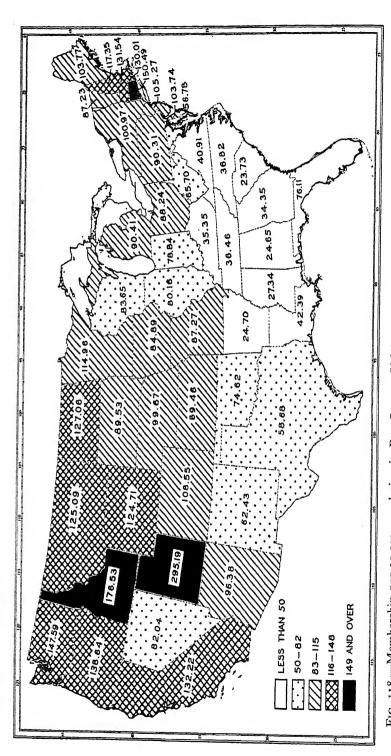
TABLE 89\*

Membership per 10,000 Population in Boy Scouts, Girl Scouts, and Camp Fire Girls, 1934

		Мемв		
STATE	RANK	Total	Per 10,000 Population	Standare Score
Utah	I	14,991	295.19	4 30
Idaho	2	7,856	176 53	1 80
Connecticut	3	24,182	150 49	1.25
Washington	4	23,074	147.59	1.19
Oregon		13,223	138.64	1 00
California	5 6	75,062	132 22	0.86
Massachusetts	7	55,899	131.54	0.85
Rhode Island	8	8,938	130 01	0.82
North Dakota	9	8,651	127 06	0 75
Montana	10	6,725	125 09	0 71
Wyoming	II	2,813	124.71	0 70
New Hampshire	12	5,460	117 35	0 55
Minnesota	13	29,476	114 96	0.50
Colorado	14	11,243	108 55	0 36
New Jersey	15	42,545	105.27	0.29
Maine	16	8,275	103.77	0.26
Delaware	17	2,473	103.74	0.26
New York	18	127,097	1∞.97	0 20
Nebraska	19	13,734	99.67	0.18
Arizona	20	4,198	96.38	0 11
Michigan	21	43,779	90 4I	-0 02
Pennsylvania	22	86,981	90 31	-0 02
South Dakota	23	6,203	89.53	-0.04
Kansas	<del>24</del>	16,827	89.46	-0 04
Ohio	25	58,649	88.24	-0.06
Missouri	26	31,672	87.27	~0 09
Vermont	27	3,137	87.23	-0.09
lowa	28	20,977	84.89	-0.14
Wisconsin	29	24,584	83 65	-0.16
Nevada	30	747	82.04	-o 2o
Illinois	31	61,169	80.16	-0.24
Indiana   Florida	32	25,533	78.84	-0.26
Florida	33	11,175	76.11 74.62	-0.32
West Virginia	34	17,880	65 70	-0.35 -0 54
New Mexico	35 36	2,643	62 43	-0.61
Texas		34,180	58.68	-0.61 -0.69
Maryland	37 38	9,264	56.78	-0 73
Louisiana	30 39	8,908	42.39	-0 /3 -1.03
Virginia	39 40	9,907	40 91	-1 06
North Carolina	4I	11,673	36 82	-1.15
Tennessee	42	9,539	36 46	-1 16
Kentucky	43	9,243	35.35	-1.18
Georgia	43 44	9,991	34 35	-1.20
Mississippi	44	5,494	27.34	-1.35
Arkansas	46	4,580	24.70	-I 4I
Alabama	47	6,524	24.65	-1.41
			1 TJ	

<sup>\*</sup> Source Correspondence from Boy Scouts, Girl Scouts, and Camp Fire Girls.

Mean per 10,000 population (based on means of the 48 states), 91.31; standard deviation, 47.41; U.S. total (not including District of Columbia), 1,032,752.



Source: Same as for Fig. 118.—Membership per 10,000 population in Boy Scouts, Girl Scouts, and Camp Fire Girls, 1934. Table 89. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

TABLE 90\* C.C.C. CAMPS PER 100,000 POPULATION, 1935

State	Rank	c.c c	. Camps	- Standard
	KANK	Total	Per 100,000 Population	Score
Nevada	1	19	20.88	4 70
Wyoming	2	27	11.95	2 31
Idaho	3	48	10.79	1 99
Arizona	4	43	9.86	I 74
New Mexico	5	37	8.75	I 45
Vermont	6	31	8.61	I 42
Utah	7	30	5.91	0 70
Oregon	8	51	5.35	0 54
Montana	9	25	4.65	0 35
New Hampshire	IO	19	4 09	0 19
Colorado	11	39	3 77	0 19
Virginia	12	82	3.38	0 08
Delaware	13	8	3.36	0.00
South Dakota	14	23	3.31	-0 02
Washington	15	50	3 20	-0 05
Wisconsin	16	76	2 59	-0 22
Minnesota	17	64	2 50	-0 24
West Virginia	18	42	2 43	-0 24
North Dakota	19	16	2 35	-0 27
Mississippi	20	47	2 34	-0 27
South Carolina .	21	39	2 24	-o 3o
Arkansas	22	4I	2 21	-0 32
Tennessee	23	56	2 14	-0 32
Louisiana	2 <sub>4</sub>	43	2 05	-0 35
Maryland	25	32	I 96	-0 38
Maine	26	15	1 88	-0 40
North Carolina	27	59	1 86	-0 40
Oklahoma	28	42	1 75	-0.41
Nebraska	29	24	1 74	-0.43
California	30	98	I 73	-0.43
Kentucky	31	44	ı 68	-0 46
Florida	32	24	1 63	-0 46
Michigan	33	77	I.59	-o 46
Georgia	34	44	1.51	-0 51
Alabama	35	38	I.44	-0 5I
Missouri	36	52	1.43	-0 51
Iowa	37	34	1 38	-0 54
Texas	38	77	1 32	-0 54
Indiana	39	42	1 30	-o 56
Kansas	40	21	1.12	-0 59
Pennsylvania .	4I	106	I IO	-0 62
Connecticut	42	17	1.06	-0 62
Illinois	43	73	0 96	-0 65
New Jersey	44	36	0 89	-0 75
Massachusetts	44	38	0 89	-0 75
Rhode Island	46	6	0 87	-0 77
New York	47	104	0.83	-0 77
Ohio	48	51	0.77	-0 78
	•		11	1-

<sup>\*</sup> Source: C.C.C., Directory of Civilian Conservation Camps: Seventh Period, 1936 (Mimeo; Wash.: May I, 1936).

Mean per 100,000 population (based on means of the 48 states), 3 36; standard deviation, 3.72; U.S. total, 2,110; U.S. camps per 100,000 population (including District of Columbia), 1.73.

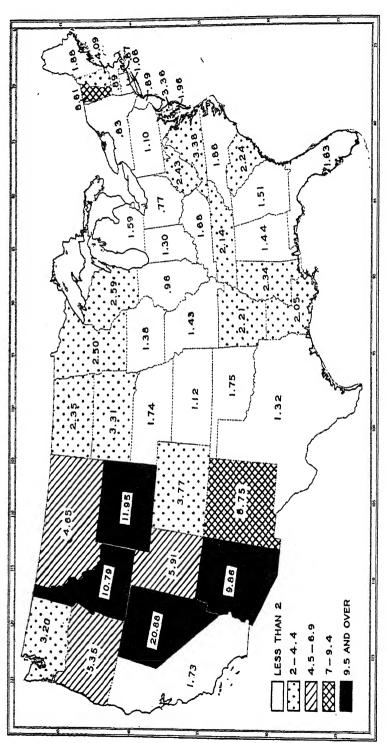


Fig. 119.—C.C.C. Camps per 100,000 population, 1935. Source: Same as for Table 90. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

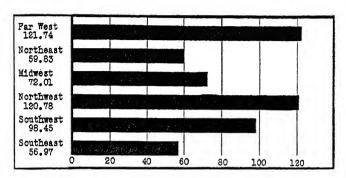


Fig. 120.—Regional summary of average membership per 100,000 population in three business men's clubs, 1935.

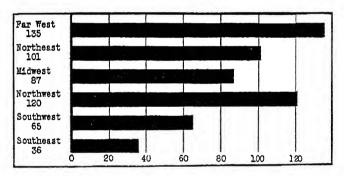


Fig. 121.—Regional summary of membership per 10,000 population in Boy Scouts, Girl Scouts, and Camp Fire Girls, 1934.

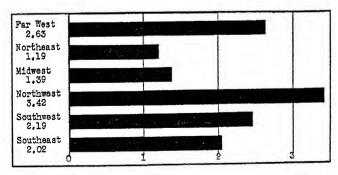


Fig. 122.—Regional summary of C.C.C. camps per 100,000 population, 1935

### ART MUSEUMS AND MEDIA FOR THE STUDY OF FINE ARTS

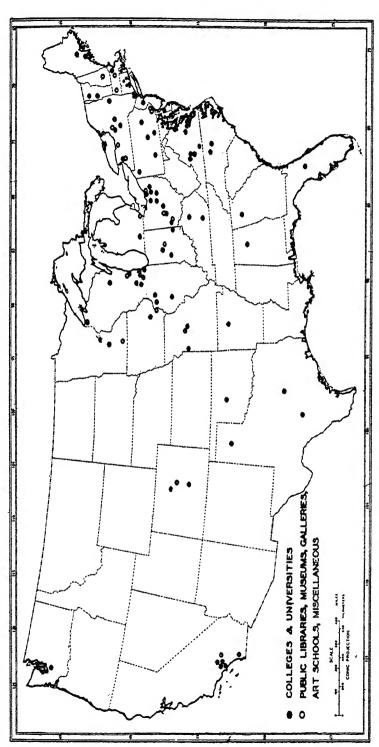
The art museum and the public library occupy logically and actually somewhat the same position in society's scheme of educational and cultural institutions. The former has been concerned with the preservation and use of the pictorial records of man's achievement, the latter with his printed records. Frequently the two institutions have been combined, particularly in European countries, and careful studies of the art museum bring into salient relief the similarity of problems of distribution, support, and use.<sup>8</sup> The public library is much more widely spread in its distribution, and the number of those whom it serves is far greater. The total expenditure for its maintenance in 1934 was \$45,855,400,9 as contrasted with \$7,394,000 spent in 1930 by 167 public art museums.<sup>10</sup>

The work of the art museum in the cultivation of appreciation of pictures has also been considerably furthered by extension service maintained by some of the museums and by the distribution by the Carnegie Corporation of New York of special collections of art materials to schools, colleges, and universities. The extension work of the Chicago Art Institute, not only within Illinois but throughout the Middle West and the country, generally, has been distinctive and furnishes a fine example of how museums, libraries, and the extension services of colleges and universities can aid in this kind of special education. The location of libraries, colleges, and universities to which the aforementioned art sets have been given is shown in Figure 123. Table 91 summarizes information for 1930 concerning public museums of all kinds (including art museums). Distribution by states and regions is not shown, but it is of interest to mention here that the Northeast, the Midwest, and

<sup>&</sup>lt;sup>8</sup> P. M. Rea, *The Museum and the Community* (Lancaster, Pa.: The Science Press, 1932).

<sup>9</sup> See Table 19.

<sup>&</sup>lt;sup>10</sup> L. V. Coleman, "Recent Progress and Conditions of Museums," U.S. Office of Education, *Biennial Survey of Education in the United States*, 1928–1930, Bulletin 1931, No. 20 (Washington: Government Printing Office, chap. xxii.



art schools up to June, 1936. Source: Correspondence from the Carnegie Corporation of New York, '(Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.) Fig. 123.—Art sets distributed by the Carnegie Corporation of New York to colleges, universities, public libraries, galleries, and

the Far West are better represented than are the Southeast and the Northwest. Summarized data for later years are unavailable. Since 1930, however, great impetus has been given to the museum movement through those who are themselves concerned with the museums, and through the federal government, which has furnished employment to artists and has aided in the development of nation-wide art projects.

TABLE 91\*
Public Museums Existing in 1930, Grouped by Field

Field	Museums	Aggregate of 1930 Incomes (Approximate)	Buildings	Cost of Buildings†
Art	 167	\$ 7,394,∞∞	56	\$ 51,969,000
Science	 125	4,796,∞∞	42	22,162,000
History	 415	919,∞∞	44	7,435,000
Industry	 24	632,∞∞	4	6,470,000
General	 50	2,590,000	20	15,145,000
Total	 781	\$16,331,000	166	\$103,181,000

<sup>\*</sup> Source: L. V. Coleman, "Recent Progress and Conditions of Museums," U.S. Off. Educ., Biennial Survey of Education in the United States, 1928–1930, Bull. 1931, No. 20 (Wash.: Govt. Print. Off., 1932), chap. XXI.

#### SUMMARY

The World War and the depression have been great school-masters of the past twenty years to whom America, willingly or otherwise, has gone to school. But besides these two there have been an infinite number of other forces and organizations which have played the role of teacher in a less grim and exacting manner. In city, in country, they have brought adults everywhere to learn more, not only about vocational readjustment, the practical problems of daily living, and the interplay of social, economic, and political forces within a democracy, but also about the sciences, history, literature, the drama, music, art, the crafts, dancing, recreation, and the fine art of individual living. The automobile, the moving picture, the radio, the daily press, and the magazine have affected this instruction in various

<sup>†</sup> Only buildings designed for museum purposes are considered. With these are included museum additions to buildings of other kinds, and in any such case the cost taken is that of the addition, alone.

ways, and the library, where it exists and has been able to play its part adequately, has made large contributions to their educational significance.

The total involved in these formal and informal agencies has been estimated to run into the millions. The enrolment in 1934 in agricultural extension was placed at 6,000,000; radio education, 5,000,000; unemployed (relief), 2,250,000; recreation, 2,000,000; public schools, 1,500,000; private correspondence schools, library groups, lyceums and Chautauquas, men's and women's clubs, 1,000,000 each; and the total in all kinds of adult educational activities, at 22,311,000.11

This chapter has attempted to indicate some of the varying groups which might be expected to draw upon the library in carrying out their objectives and to show how these groups are distributed in relation to the facilities which they might profitably use. The group patterns deepen the conviction that the lack of supporting libraries in so comprehensive a program seriously limits its maximum effectiveness.

<sup>&</sup>quot; Cartwright, op. cit., p. 60.

# PART III CAUSAL FACTORS

#### CHAPTER XIII

#### ASPECTS OF GEOGRAPHY AND POPULATION

ARIATION in the distribution of library facilities, of media for the dissemination of ideas, and of agencies and organizations of a cultural nature has been abundantly demonstrated in Parts I and II. The question which Part III asks is, why are library facilities so unequally accessible?

Two answers have recently been attempted. In County Library Service in the South<sup>1</sup> and in "Public Library Service in the Middle West," the authors have undertaken to account for variation in two major regions composed of fairly homogeneous states. But no effort has previously been made to explain variation within the nation as a whole. Obviously, this task is much more complex, owing to the differences which exist among the six regions, though the factors will be the same in many instances.

The causes considered in the two studies may be briefly summarized here. In accounting for the relatively backward library development of the South, the writers presented reasons under four general categories. The first causal factors were geographic. The fact was pointed out that climatically the South (as distinguished in the present study from the Southeast and the Southwest) was characterized by a long growing season, an annual rainfall, and types of soil that made cotton growing the predominant form of agricultural activity for the region; and although many parts of the region produced no cotton whatever, the cultural pattern of the South was, they maintained, largely conditioned by this major fact. Submarginal

<sup>&</sup>lt;sup>1</sup> L. R. Wilson and E. A. Wight, County Library Service in the South (Chicago: University of Chicago Press, 1935), chap. x.

<sup>&</sup>lt;sup>2</sup> G. F. Purdy, "Public Library Service in the Middle West" (Unpublished Ph.D. dissertation, Graduate Library School, University of Chicago, 1936), chap. v.

areas in the mountain plateaus and highlands, and in the exhausted eastern cotton belt, and soil erosion in many sections were also set down as geographical considerations which affected the establishment and support of libraries adversely.

The second group of causes was pointed out as incident to population. The region was populated predominantly by native whites and Negroes. Owing to racial segregation two sets of institutions had to be maintained, thus involving increased expense; the total population was excessively rural-farm; the proportion of children to adults was higher than in any other region, thereby adding to the burden of support of education to be carried by a relatively smaller number of adults in the total population; and through migration the region systematically lost many of its potential leaders to other sections of the country. Each of these population factors was shown to affect profoundly the social structure and effectiveness of the region.

The third category of influences retarding library development was classed as economic. Natural resources, though abundant, were not adequately developed on account of lack of technical and financial resources. Wages, per capita income, and the value of manufactured raw materials were lower than in any other region; and the excessive cultivation of cotton, with its attendant blights of farm tenancy and dependence upon a world market rather than upon a domestic one, completed an economic structure inadequate to supply the surplus upon which, in the final analysis, library development must very largely rest.

The causes constituting the fourth category were educational. The Southern region, more than any other, had experienced a historical lag in the development of its educational facilities. Illiteracy was high; the number of children per hundred thousand population was a third greater than in several regions; separate schools from the elementary grades through college had to be maintained for two races; the general pattern of higher education exhibited many divisions, such as public and private institutions both for men and for women, colleges of liberal

arts, and colleges of agriculture. Although a very high per cent of the total revenue for governmental purposes was devoted to the support of education, there was not enough basic wealth to yield the amount of revenue necessary for the support of adequate facilities.

The study which Mr. Purdy made dealt with public library development in Ohio, Indiana, Michigan, Illinois, Iowa, Wisconsin, and Minnesota. He limited his investigation to six quantitative factors which he treated statistically. He considered respectively: (1) economic ability as determined by per capita income tax returns and by per capita retail sales; (2) urbanization; (3) status of reading which, as a source of ideas and recreation, was determined by the distribution of bookstores, the circulation of national magazines, daily newspapers, weeklies, and farm journals; (4) per cent of population 12-17 vears of age in high school; (5) recent trends in growth of population; and (6) nativity of population. He found the 622 counties of the seven states relatively homogeneous as to economic and social conditions, and he came to the conclusion that, of the six factors considered, economic ability and urbanization accounted far more than any others for the variation evidenced, since economic ability counts for more than do urbanization and density of population. He also studied the relationship between the distribution of radios, telephones, and automobiles and the library index for the seven states. In this investigation he found that where libraries were well developed, bookstores, magazines, radios, and automobiles were usually correspondingly numerous; and where libraries were not generally well developed, the farm journal and rural weekly paper were largely in evidence. Table 92 illustrates the relationships discovered.

In both the Wilson and Wight and the Purdy studies the authors have indicated other causes as operating in these regions and have suggested the desirability of further investigation. Among the factors prominently mentioned were (1) the attitudes of given populations toward libraries, (2) schemes of taxation for library support, and (3) legislation providing for

the organization, administration, and support of library facilities—all of which would probably be found to affect library development as fundamentally as do the causes which can be measured quantitatively.

TABLE 92\*

Comparison of Three Typical Counties

Bases of Comparison	Black Hawk County, Iowa	Menominee County, Michigan	Johnson County, Illinois
Library index	130 49	98 33	11 4
Library circulation in volumes per 100 population Per cent of population served by libraries Per capita retail sales in dollars	721 77 516	439 1∞ 295	46 9 136
Number income tax returns per 10,000 population	270	172	30
Economic index	161 16 52	98 40 39	29 68 16
Number of telephones per 100 families	66	42	21
Number of automobiles per 100 families	100 7	82 2	54 0
Circulation of fifteen magazines per 100 families. Circulation of Curtis and Crowell magazines per	167	69	29
100 families	90	44 85	25 21
Circulation of weekly newspapers per 100 families Circulation of farm journals per 100 families		37 86	118
Per cent 14-17 in school	78	68	77

<sup>\*</sup>Source: Adapted from G. F. Purdy, "Public Library Service in the Middle West" (Unpub. Ph.D. diss., Grad. Lib. Sch., U. of Chic., 1936), Table 19, p. 111.

In considering the causes which have produced variation within the nation as a whole, both types of influences require additional attention: both quantitative and intangible factors must be taken into account. The problem of library development should be viewed against the background of a number of recent studies which deal with the distribution and support of other institutions. A minimum list may well include the follow-

ing: Odum's Southern Regions of the United States,3 which treats of all kinds of institutions as well as of geographical, social, and economic conditions and attitudes; Mort's Federal Support for Public Education,4 which portrays differences in the ability of various states to support public schools; the Federal Emergency Relief Administration's Six Rural Problem Areas,5 which shows the relation of submarginal land to economic support of individuals and institutions; Raper's Preface to Peasantry,6 which deals with the impoverishment and near-slavery inherent in farm tenancy; Goodrich's Migration and Economic Opportunity,7 which contrasts the plane of living with the economic resourcefulness of every county in the nation; and Norton and Norton's Wealth, Children and Education,8 which brings together in one publication the latest factual data concerning the ability of different states and regions to support education—all these studies bear upon the subject either directly or indirectly.

Because of the importance of this background material, the chapters of Part III of this study are devoted to its consideration. The remainder of this chapter is concerned with the role played by geography and population in affecting variation in library development.

#### GEOGRAPHIC ASPECTS

As a result of droughts, dust storms, and floods during the last half-decade America has become acutely conscious of

- <sup>3</sup> H. W. Odum, Southern Regions of the United States (Chapel Hill: University of North Carolina Press, 1936).
- <sup>4</sup> P. R. Mort, *Federal Support for Public Education* (New York: Teachers College, Columbia University, 1936).
- <sup>5</sup> U.S. Federal Emergency Relief Administration, Division of Research Statistics and Finance, Six Rural Problem Areas: Relief—Resources—Rehabilitation, Research Monograph I (Washington: Government Printing Office, 1935).
- <sup>6</sup> A. F. Raper, *Preface to Peasantry: A Tale of Two Black Belt Counties* (Chapel Hill: University of North Carolina Press, 1936).
- <sup>7</sup> Carter Goodrich et al., Migration and Economic Opportunity: The Report of the Study of Population Redistribution (Philadelphia: University of Pennsylvania Press, 1936).
- <sup>8</sup> J. K. Norton and M. A. Norton, *Wealth, Children and Education* (New York: Bureau of Publications, Teachers College, Columbia University, 1937).

geographic conditions which affect men and institutions. It has been vividly reminded of the theory which many students of society have held, that the activities of a people are definitely related to the areas in which they live, and that the work of a people profoundly shapes their culture or civilization. The cultures of the mountaineer, the cowboy, the share cropper are influenced by the mountain ridges and valleys, the ranches, and the cotton belt from which they have sprung. As Mr. Bowman says:

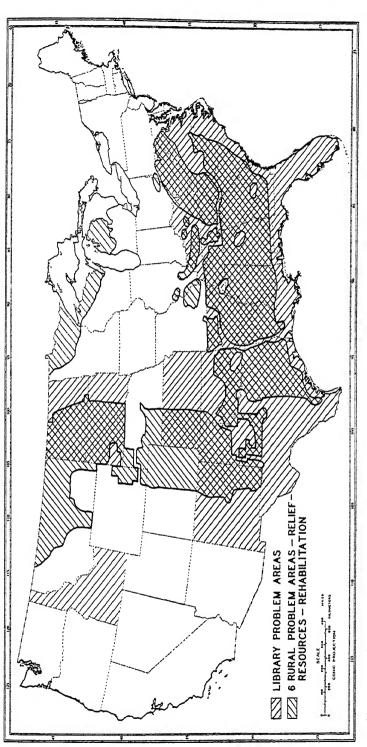
Man alone among life forms applies a mind to the frustration or adaptation of the natural forces of his environment and is less obviously disturbed in a logical way. Yet for all his independence and ingenuity he can never wholly escape from his environment.... This world is made up of regions and each region has its own personality, its own set of significant conditions.9

Knowledge of submarginal land, of soil erosion, of mountain, plateau and highland, of wide areas of limited rainfall has widely multiplied, and state and federal legislation has been directed increasingly to situations which are incident to these geographic conditions. Subsistence farming, resettlement projects, purchase of lands for reforestation, and withdrawal of submarginal areas from settlement have assumed an importance hitherto unknown in state and national planning. When they are considered in relation to statistics of relief, they make clear the fact that public services such as schools and libraries cannot be maintained in certain areas by means of local resources. If they are to be maintained at an adequate level, it is necessary that their support be supplemented by funds from other areas which possess abundant economic resources.

Figure 124, which indicates the location and extent of six rural areas<sup>10</sup> in which the problems of relief have been particularly acute in recent years, shows the intimate relation which exists between areas of submarginal land and the lack of library development.

<sup>&</sup>lt;sup>9</sup> Isaiah Bowman, Geography in Relation to the Social Sciences (New York: Charles Scribner's Sons, 1934), pp. 3-4.

<sup>&</sup>lt;sup>10</sup> U.S. Federal Emergency Relief Administration, Division of Research Statistics and Finance, op. cit., p. 33.



Administration, Division of Research Statistics, and Finance, Six Rural Problem Areas: Relief-Resources-Rehabilitation, Re-Fig. 124.—Six rural problem areas superimposed over library service problem areas. Source: U.S. Federal Emergency Relief search Monograph, I (Washington: Government Printing Office, 1935); Table 51 (Index of Public Library Development, 1934). (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

The six areas which the Federal Emergency Relief Administration has studied are: (1) the Appalachian-Ozark area, (2) the Lake states cut-over area, (3) the winter and (4) the spring wheat areas between the 100th meridian and the Rocky Mountains, and (5) the western and (6) eastern cotton belts. The Appalachian-Ozark area embraces the mountain highlands and plateaus from Pennsylvania to the Carolinas, Tennessee, and Kentucky, and the Ozark region in Arkansas, Missouri, and Oklahoma, west of the Mississippi. The Lake states cut-over area in Michigan, Wisconsin, and Minnesota has been stripped of its timber. The wheat areas were formerly grazing regions and, because of the limited rainfall, are ill-adapted to intensive cultivation. The two cotton belts comprise the most highly concentrated regions of farm tenants and share croppers in America, and in the eastern cotton belt the soil is unfortunately exhausted after more than a century of steady planting of cotton.

Figure 124 imposes these areas over what may be considered, according to the library index developed in chapter vii, as the problem areas of the nation in terms of library service. Both the relief and library areas cut across state boundaries and fail in many subdivisions to coincide exactly. Parts of certain states are included in the library areas, as in the case of southern Illinois, because library development in that part of the state is low. In general, those states are included which, according to the library index, fall below -0.50. These six areas included in 1935 approximately one-half of all rural families on relief in the United States, 36 per cent of the rural population, and 43 per cent of the farmers in the United States on the basis of the 1930 census. They contained about one-third of the farm owners of the nation, one-half of the farm tenants, and four-fifths of the share croppers. The two cotton belts contained more than three-fourths of all Negro farmers." Three figures in Migration and Economic Opportunity12 vividly reinforce this specific statement and show that of the 380 counties in the United States which had an average gross income of less than \$150 per

<sup>11</sup> *Ibid.*, pp. 1-3.

<sup>22</sup> Goodrich et al., op. cit., Plate I and p. 14.

TABLE 93\* PER CENT OF POPULATION 19 YEARS OF AGE, AND UNDER, 1930

State	Rank	Population 19 Years of Acand Under	
		Total	Per Cent
South Carolina	1	879,979	50 6
North Carolina	2	1,561,200	49.3
Alabama	3	1,243,203	47.0
New Mexico	4	198,428	46.8
Mississippi	5	934,439	46 6
Georgia	6	1,344,010	46 3
West Virginia	7	796,552	46.I
Utah	7	233,646	46 I
Arkansas	9	848,284	45.8
North Dakota	10	309,074	45 4
Virginia	II	1,074,396	44 4
Oklahoma	12	1,061,168	44 2
Louisiana	13	923,958	44 0
Kentucky	14	1,147,491	43 9
Tennessee	15	1,145,062	43 8
Idaho	16	190,289	42.8
Texas	17	2,483,200	42 6
South Dakota	18	294,286	42 5
Arizona	19	183,386	42 I
Pennsylvania	20	3,803,561	39 4
Nebraska	21	540,263	39.3
Florida	22	575,055	39.2
Wyoming	22	88,504	39 2
Montana	24	209,786	39 0
Minnesota	25	981,486	38 3
Kansas	26	717,044	38 1
Colorado	27	394,522	38 0
Wisconsin	27	1,120,486	38.0
Michigan	29	1,822,766	37 7
Maine	30	297,508	37-3
Maryland	31	605,702	37.2
Iowa	31	922,602	37.2
Vermont.	33	133,081	37.0
Connecticut	33	593,598	37.0
Rhode Island	33	254,402	37.0
Indiana	36	1,181,719	36.5
Ohio	37	2,403,337	36 1
New Jersey	37	1,459,324	36.1
Delaware	39	85,391	35 9
Missouri	40	1,296,612	35.7
New Hampshire	4I	163,743	35.2
Massachusetts	4 <sup>2</sup>	1,493,449	35.1
Washington	43	2,656,850	34 9
New York	44	4,223,632	33 7 33 6
Oregon	45 46	316,408	33 I
			31.8
Nevada	47 48	28,910	30.4
<b>∨аш</b> ∪ша	40	1,723,571	ا ب·⊶

\* Source: Computed from U.S. Bur. For. and Dom. Comm., Statistical Abstract of the United States, 1935 (Wash.: Govt. Print. Off., 1935), Tables 28-29, pp. 36-38.
Mean per cent (based on per cents of the 48 states), 39.9; standard deviation, 4.975; U.S. total, 47,608,991; U.S. per cent 19 years of age, and under (including District of Columbia), 38.8.

rural farm inhabitant in 1929, all but 7 were in the Southeast and Southwest, and that of the 64 counties in which the per farm inhabitant income was less than \$100, 52 were in the southern Appalachians.

#### POPULATION

People, as well as geography, have left their impress upon the pattern of library development in the United States. Consequently, aspects of population which have affected this pattern may next be considered. Of these there are a number. One of the most important is the ratio of persons nineteen years of age, or under, to those twenty years of age, or older. Table 93 shows that in the Southeast, in sections of the rural problem areas discussed above, the ratio approximates I to I; for example, in South Carolina, the total per cent of the population nineteen years of age, or under, is 50.6. In California it is only 30.4 per cent. This means that in South Carolina in every population group of 1,000 persons there are only 494 adults twenty years of age, or older, who provide public services for 506 persons nineteen years of age, or under. In California, there are 696 adults in each 1,000 population group who provide such services for 304 persons nineteen years of age, or under. Marin County, in that state, has the numbers 738 and 262, respectively. The conviction is inescapable that this condition goes far to account for many of the differences in library development in the two states. It is also significant that of the ten states having the highest public library status none is included in the list of the ten states which have the highest per cent of persons nineteen years of age, or under; and eight of the latter states are to be found in those ten where library status is lowest. North Carolina, which ranks second among the states with the highest per cent of children, escapes inclusion in the lowest ranking library group by only one point. Regionally, the same condition is evident, as library status is related in exact inverse order to per cent of children in the total population.

The second aspect of population that may be considered as

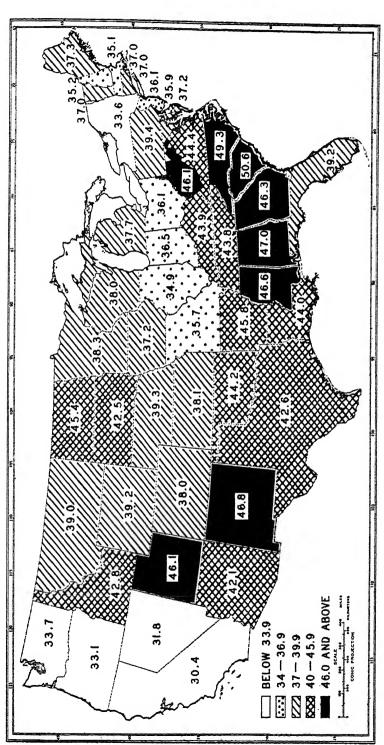


Fig. 125.—Per cent of population 19 years of age, and under, 1930. Source: Same as for Table 93. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

affecting variation in library development is the natural increase in population in areas where agriculture, manufacturing, mining, lumbering, or other wealth-producing activities yield only a bare subsistence income. The rate of natural increase in population, owing to excess of births over deaths, is notably higher in rural than in urban areas, and, unless the excess population from the less productive agricultural areas migrate to the highly industrial urban areas, a lowering of the present standards of living seems inevitable. Through the Scripps Foundation and the National Research Board two estimates have been

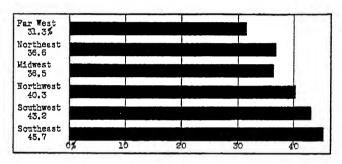


Fig. 126.—Regional summary of per cent of population 19 years of age, and under, 1930.

made of the probable increase in population by 1960. In one estimate the increase has been based upon the present tendency of migration from rural to urban areas. In this instance an increase in urban population of 19.3 per cent and an increase in rural population of 9.4 per cent would occur by 1960. But if there were no migration, urban population would decrease slightly, rural population would increase nearly 40 per cent, and rural farm population, 50 per cent. In speaking of these estimates in *Migration and Economic Opportunity*, the writer says:

While it may seem hard to imagine the cities sustaining a 20 per cent increase, it is, on the argument of this chapter, entirely impossible to think of the farms supporting 50 per cent more than their present population without a drastic lowering of living standards.<sup>3</sup>

<sup>&</sup>lt;sup>13</sup> *Ibid.*, pp. 496–97.

TABLE 94\*
Per Cent Increase in Population, 1920-30

		1	<del>,                                     </del>
State	Rank	Per Cent Increase	Standard Score
California	I	65.7	4 25
Florida	2	51 6	3 08
Michigan	3	32 0	1.47
Arizona	4	30 3	1.33
New Jersey		28 1	1 15
Texas	5 6	24 9	0 88
North Carolina	7	23 9	0.80
Oregon	8	23 9	0.63
New York.	9	21 2	
Oklahoma	10	18 1	0.58
	10		0 32
7111			0 32
37 1	12	17 7	0.29
** ** .	13	17 6	0.28
	14	17 5	0 27
Louisiana	15	16 9	0.22
Connecticut	16	16 4	0.18
Wyoming	17	160	0.15
Ohio	18	15 4	0.10
Washington	19	15 2	0.08
Rhode Island	20	13 7	-0 04
Utah	21	13 0	-0.10
Alabama	22	12 7	-0.12
Maryland	23	12 5	-0.14
Mississippi	24	12 2	-0.17
Tennessee	25	11 9	-0.19
Wisconsin	26	11 7	-0.21
Indiana	27	10 5	-0 31
Pennsylvania	27	10 5	-0 31
Massachusetts	29	10 3	-0.32
Colorado	30	10 2	-0.33
South Dakota	31	8 8	-0.45
Kentucky	32	8 2	-0 50
Minnesota	33	7 4	-o 56
Delaware	34	6 9	-0.60
Missouri	35	6 6	-o 63
Kansas	36	6 3	-0.65
Nebraska	36	63	-0.65
Arkansas	38	5.8	-0 69
North Dakota	39	5 3	-0 74
New Hampshire	40	50	-o.76
Virginia	4I	4 9	-0.77
Maine	42	3.8	-0.86
South Carolina	43	3.3	-0.90
Idaho	43 44	3.0	-0.93
Iowa		2.8	-0.93 -0.94
Vermont	45 46	2.0	-1.01
	•	}	-1.01 -1.14
Georgia	47	0 4 -2 I	-1.14 -1.35
Montana	48	-21	-1.35
		1	

<sup>\*</sup> Source. U.S. Census, 1930, Population, I, 15.

Mean per cent (based on per cents of the 48 states), 14.21; standard deviation, 12.12.

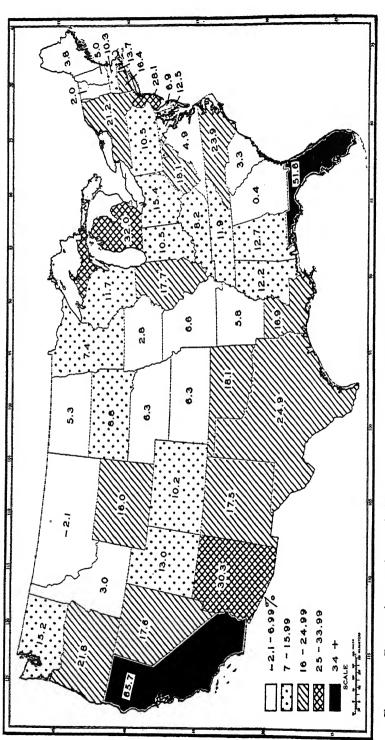


Fig. 127.—Per cent increase in population, 1920-30. Source: Same as for Table 94. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

Studies of the flow of population from cities to rural areas during 1931-33 showed clearly that, just as the drift from the farms to the cities had been from the poorer farming areas, so the return to the farms was largely to submarginal areas.<sup>14</sup>

As a result of migration and of the excess of birth-rate over death-rate, the increase in population in the 48 states has varied considerably. Table 94 and Figures 127 and 128 show the per cent of increase from all causes, 1920–30, and Table 95 and Figures 129 and 130 show the median size of families. Migration to resort states accounts largely for the great increase in population in California and Florida. Migration to manufacturing

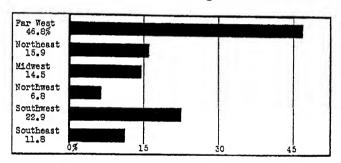


Fig. 128.—Regional summary of per cent increase in population, 1920-30

areas is indicated in Michigan, and natural increase, as reflected in median size of families, is shown in North and South Carolina. The effect of migration from Mexico is also shown in the Southwest.

The bearing of these data upon library development may not be instantly apparent. It is obvious, however, that the great influx of population into California between 1926 and 1935 had much to do with the lowering of per capita support for public libraries. This decrease was from \$1.08 to \$0.77. The increase in total support, however, was from \$3,709,682 to \$4,397,231; while the increase in population, between 1920 and 1930, was from 3,426,861 to 5,677,251. It is equally apparent that the migration of young men and women from rural and agricultural

<sup>&</sup>lt;sup>14</sup> Carter Goodrich, "What Would Horace Greeley Say Now?" Survey Graphic, XXV (1936), 359.

TABLE 95\*

Median Size of Families, 1930

		<del></del>	
State	Rank	Median Size	Standard Score
North Carolina	I	4.24	2.46
South Carolina	2	4.10	2 03
West Virginia	3	3 95	1.57
North Dakota	4	3 94	I 54
Utah	5	3.86	1.29
Virginia	6	3.82	1.17
Alabama	7	3.81	1.14
Georgia	ĺ ģ	3.75	0 95
Tennessee	9	3 70	0 80
New Mexico	10	3 67	0 71
Kentucky	11	3 66	0.68
South Dakota	12	3 64	0.62
Arkansas	13	3 61	0.52
Louisiana	13	3 61	0 52
Pennsylvania.	13	3 61	0 52
Oklahoma	16	3.60	
Mississippi	17	3.56	0 49
Texas	18		0 37
Minnesota		3 53	0 28
	19	3 52	0 25
	20	3 47	0 09
Maryland	20	3 47	0 09
New Jersey	20	3.47	0.09
Rhode Island	20	3 47	0 09
Wisconsin	20	3 47	0.09
Connecticut	25	3 45	0.03
Massachusetts	26	3 43	-0.03
Nebraska	27	3.40	-o.12
Michigan	28	3.37	-0.22
New York	29	3.31	-0.40
Illinois	30	3.30	-0.43
Arizona	31	3.29	<b>-</b> 0 46
Delaware	32	3.28	<del>-</del> 0 49
Iowa	32	3 28	-0.49
Ohio	32	3.28	-0.49
Kansas	35	3.26	-o.55
Maine	36	3 <del>24</del>	-0.62
Indiana	37	3.23	-0.65
Vermont	37	3.23	-o.65
Missouri	39	3 20	-0.74
Wyoming	40	3 18	-o.8o
Colorado	4I	3.17	-0.83
Montana	42	3.16	-o.86
Florida	43	3.13	-o 95
New Hampshire	44	3.12	قُوْ.ه— 8ُوُ.ه—
Washington	45	3.∞	-1.35
Oregon	46	2.92	-1.60
California	47	2.77	-2.06
Nevada	48	2.50	-2.89

<sup>\*</sup> Source: U.S. Census, 1930, Population, VI, Table 44, p 37. Mean (based on medians of the 48 states), 3.44; standard deviation, 0 324.

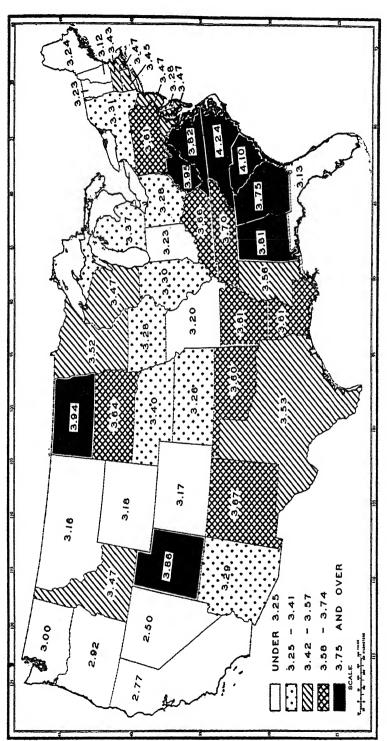


Fig. 129.—Median size of families, 1930. Source: Same as for Table 95. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

areas into urban and industrial ones leaves the burden of support of public agencies upon population groups in which the per cents of children and of old people are much higher than the national average.

Table 95 and Figures 129 and 130, which deal with the median size of families, merely add to the volume of evidence concerning the effect of large numbers of children in a given population. Of the ten states whose library index is highest, four have the lowest median size of families, and of the ten states whose library index is lowest, six have the highest median size of families. Regionally, the same situation is revealed, ex-

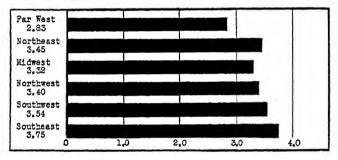


Fig. 130.—Regional summary of median size of families, 1930

cept that the Northeast, although ranking higher than the Northwest, the Southwest, and the Southeast in library development, more nearly approximates their rank in median size of families. The data also fail to support the opinion frequently held that the large size of families in the Southeast is primarily due to the number of children in Negro families. In all the states of this region the median size of the Negro family is actually lower than that of the white family. In seven states, nevertheless, the ratio of Negro children (5–13 years of age) to 1,000 Negro adults (20–64 years of age) is higher than that of white children to 1,000 white adults. Frobably one reason for the difference in ratios is the excessive migration during 1920–30

<sup>&</sup>lt;sup>15</sup> These data were supplied by Mr. Newton Edwards, Professor of Education at the University of Chicago, who has compiled extensive tables on population for the American Youth Commission.

TABLE 96\*
Per Cent of Population Urban, 1930

State	Rank	Per Cent Urban	Standard Score
Rhode Island	I	92.4	2.35
Massachusetts	2	90.2	2 24
New York	3	83.6	
New Jersey	4	82.6	1.91 1.86
Illinois.		1	ł
California	5 6	73 9	I 4I
Connecticut		73.3	I 38
Michigan	7 8	70.4	1.23
Ohio		68.2	1.13
Pennsylvania	9	67.8	I.II
Maryland	9	67.8	I.II
	II	59.8	0 70
New Hampshire	12	58.7	0 64
Washington	13	56.6	0 54
Indiana	14	55-5	0 48
Wisconsin	15	52.9	0 35
Utah	16	52-4	0.32
Delaware	17	51.7	0.29
Florida	17	51.7	0.29
Oregon	19	51 3	0.27
Missouri	20	51.2	0.26
Colorado	21	50.2	0.21
Minnesota	22	49.0	0.15
Texas	23	41.0	-0 25
Maine	24	40.3	-0.29
Louisiana	25	39.7	-0.32
Iowa	26	39.6	-0.33
Kansas	27	38.8	-0.37
Nevada	28	37.8	-0.42
Nebraska	29	35.3	-0.54
Arizona	30	34.4	-0.59
Oklahoma	31	34.3	-0.59
Tennessee	31		
Montana	33	34.3	-0.59
Vermont		33.7	-0.63 -0.66
Virginia	34	33.0	
Wyoming.	35	32.4	-0.69
Goorgia	36	31.1	-0.76
Georgia	37	30.8	-0.77
Kentucky	38	30.6	-0.78
Idaho	39	29.1	-0.86
West Virginia	40	28.4	-0.89
Alabama	4I	28.1	-0.91
North Carolina	42	25.5	-1.04
New Mexico	43	25.2	-1.06
South Carolina	44	21.3	-1.25
Arkansas	45	20.6	-1.29
South Dakota	46	18.9	-1.38
Mississippi	47	16.9	-1.48
North Dakota	48	16.6	-1.49

\* Source: U.S. Census, 1930, Population, I, Table 9, p. 15.
Mean per cent (based on per cents of the 48 states), 46 02; standard deviation, 19-71.

of many adult Negroes to the industrial areas of the Northeast and the Middle West.

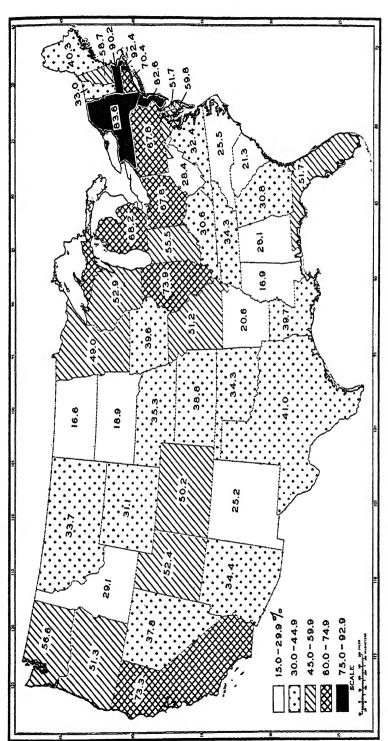
Another factor falling under the category of population influences is that of urban versus rural development in the United States. In chapter i, the major problem of library development in the nation is set down as the problem of providing library facilities for the 40,000,000 rural dwellers now without them. According to the prevailing tendency the problem is rightly considered a rural one, although where legislation and other conditioning factors highly favorable to county library development have been operative, as in California, Wyoming, Indiana, and New Jersey, library service is well developed in rural, sparsely settled areas. Mr. Purdy has shown on a strictly statistical basis that urbanization is closely associated with economic ability as a conditioning factor in library development; for it is clear that the regions which rank high in per cent of urban population also rank high in library service. 16 Mr. Wirth, in discussing the nature of the effects of urbanization upon the distribution of the various facilities of communication, concludes that the distribution of radios and magazines, for example, is less extensive in regions where the populations are largely rural than where they are largely urban.<sup>17</sup> And Mr. Brunner, in his study of 140 rural communities, shows that as the size of towns and villages diminish, library service, adult education classes, and other co-operative enterprises and services tend to decrease or to disappear entirely.18

Table 96 and Figures 131 and 132 show the variations in per cent of urban population of the forty-eight states. The figures also show that three regions, the Far West, the Northeast, and the Midwest, have more than 50 per cent of their population urban, while the Southeast, Southwest, and Northwest have

<sup>16</sup> Purdy, op. cit., pp. 59-61.

<sup>&</sup>lt;sup>17</sup> U.S. National Resources Committee, Research Committee on Urbanism ["A Study of Communication Facilities"]. (MS in preparation.)

<sup>&</sup>lt;sup>18</sup> E. deS. Brunner and Irving Lorge, Rural Trends in Depression Years, 1930-1936 (New York: Columbia University Press, 1937), p. 229.



F10. 131.—Per cent of population urban, 1930. Source: Same as for Table 96. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

less. Extensive variation also exists within the regions themselves. In the Far West the range by states is from 73.3 to 37.8; in the Northwest, from 52.4 to 18.9; in the Southwest, from 41.0 to 25.2; in the Southeast from 51.7 to 16.9; in the Midwest from 73.9 to 39.6; and in the Northeast from 92.4 to 28.4. Rhode Island ranks highest in urban population, Mississippi and North Dakota, lowest. If the index of library development (Fig. 50) is compared with the per cent of urban population (Fig. 131) the interesting relationship between the two is clearly shown. Twenty-one states are in the same interval. In the twenty which vary one interval, library development is found to be

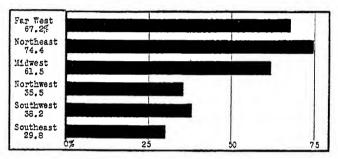


Fig. 132.—Regional summary of per cent of population urban, 1930

one interval higher than per cent of urban population in eleven of the states, and one interval lower in nine. Library development is two intervals higher than per cent of urban population in four states, Maine, Nevada, New Hampshire, and Oregon, and two lower in one (Pennsylvania), while in Vermont and Wyoming it is three intervals higher.

If the comparison is carried out on the regional basis, the correspondence between library development and urbanization becomes even more pronounced. Figure 51 (Regional summary of index of public library development) shows that the Far West, the Northeast, and the Midwest rank highest in library development. They all stand above the national average, while the Northwest, the Southwest, and the Southeast stand below it. Similarly, the former are from 61.5 to 74.4 per cent urban, whereas the latter are from 29.8 to 38.2 per cent urban.

TABLE 97\*
Per Cent of Population Foreign-born White, 1930

State	Rank	Per Cent Foreign-Born White	Standard Score
New York	1	25.4	2 21
Massachusetts	2	24 8	2 13
Rhode Island	2	24.8	2 13
Connecticut	4	23 8	2 00
New Jersey	5	20 9	1 60
New Hampshire	6	17 8	I 19
Michigan	7	17.4	-
Illinois	8	16 0	1 13
Washington	9	_	0 94
North Dakota	10	15 6	0 89
Minnesota	11	15 4	0 86
California	11	15 I	0 82
Montana		I4.3	0 71
Nevada	13	13 6	0 62
TT!* • !	14	13 5	0 60
n	15	13 1	0 55
	16	12 8	0 51
Maine	17	12 6	0 48
Vermont	18	12.0	0 40
Oregon	19	II I	0 28
Ohio	20	97	0 09
South Dakota	21	95	0 06
Wyoming	22	8 7	-0 04
Utah	23	8 6	<del>-</del> 0 06
Nebraska	24	8 4	-o o8
Colorado	25	8 2	-0 11
Delaware	26	7 I 6 8	-o 26
Idaho	27	6 8	<b>-</b> 0 30
Iowa	28	6 7	-0 31
Maryland	29	58	-o <sub>44</sub>
Indiana	30	4 2	-o 65
Missouri	31	4 1	-0 67
Florida	32	40	<b>−</b> 0 68
Kansas	33	3 7	-0 72
Arizona	34	36	-o 73
West Virginia	35	30	-o 81
New Mexico	36	18	-o 98
Texas	37	1.7	-o 99
Louisiana	37	17	-0 99
Oklahoma	39	11	-1.07
Virginia	40	10	−ı .о́8
Kentucky	41	08	-1.11
Alabama	42	06	-I I4
Arkansas	43	0.5	-1.15
Georgia	43	0.5	-1.15
Tennessee	43	0.5	-1.15
Mississippi	46	0 4	-I I7
South Carolina	47	0 3	-1.18
North Carolina	47	03	-1.18
	Τ/	- 3	

<sup>\*</sup> Source U.S. Census, 1930, Population, II, Table 13, p 37.

Mean per cent (based on per cents of the 48 states), 9.02, standard deviation, 740.

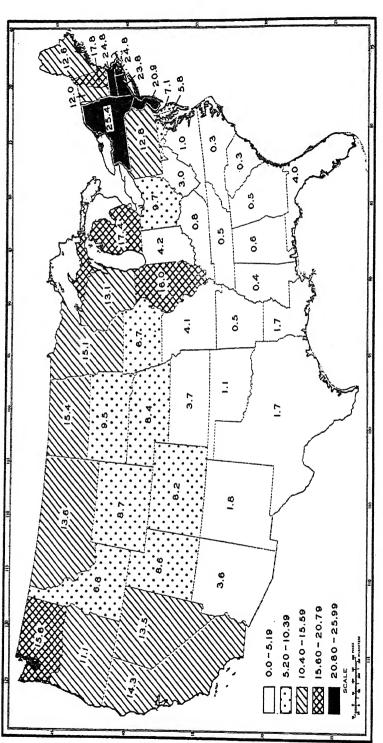


Fig. 133.—Per cent of population foreign-born white, 1930. Source: Same as for Table 97. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

The composition of population has also had its effect upon library development, though the difficulties of showing the nature of this effect are too obvious to require elaboration. The United States has frequently been called the melting pot of the nations, and to its total population and its varying cultural patterns the countries and the races of the world have contributed. From this general field, however, two sets of data may be drawn to indicate possible relationships between the composition of population and the provision of library facilities. The first data presented in Table 97 and Figures 133 and 134 relate to the per cent of total population of foreign-born whites in

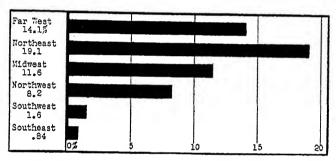


Fig. 134.—Regional summary of per cent of population foreign-born white, 1930

1930. In certain states, New York, Massachusetts, Rhode Island, and Connecticut, for example, this per cent ranges from 25.4 to 23.8, respectively, whereas in nine of the states in the Southeast the range is from 1 per cent (Virginia) to 0.3 per cent (North and South Carolina). For a century, immigration from European countries, with its accompanying infusion of different ideas and cultures, has largely passed by the Southeast, while there has been a constant infiltration of foreign elements into the Northeast, the Midwest, the Northwest, and the Far West. The public library offered an opportunity to such incoming foreigners to shorten their period of adjustment to American situations. Their subsequent demand for such an institution undoubtedly has contributed to its increasing provision and has influenced the character of the book collections in hundreds of communities where large numbers of foreign elements exist.

TABLE 98\*
Per Cent of Population Negro, 1930

State	Rank	Per Cent Negro	Standard Score
Mississippi	1	50.2	3.02
South Carolina	2	45.6	2.68
Louisiana	3	36.9	2.03
Georgia	4	36.8	2 02
Alabama		35.7	1.94
Florida	5 6	29.4	I 48
North Carolina	7	29.0	I.45
Virginia	8	26.8	1.28
Arkansas	9	25.8	1.21
Tennessee	10	18.3	0.65
Maryland	11	16.9	0 55
Texas	12	14 7	0.39
Delaware	13	13.7	0.31
Kentucky	14	8.6	-0.07
Oklahoma	15	7.2	-0.17
West Virginia	16	6.6	-0.22
Missouri	17	6.2	-0.25
New Jersey	18	5.2	-0.32
Ohio	19	4.7	-o 36
Pennsylvania.	20	4-5	-o 37
Illinois	21	4.3	-0.39
Indiana	22	3.5	-0.45
Kansas	22	3 5	-0.45
Michigan	22	3 5	-0 45
New York	25	3 3	-0 46
Arizona	26	2.5	-o 52
Connecticut	27	1.8	-0.57
Rhode Island	28	1.4	-0 60
California	28	1.4	-0.60
Massachusetts	30	1,2	-0.62
Colorado	31	1.1	-0 62
Nebraska	32	1.0	-0.63
New Mexico	33	07	-0.65
Iowa	33	0 7	-0.65
Nevada	35	0.6	-0.66
Wyoming	35	0.6	-0.66
Wisconsin	37	0.4	-0.68
Washington	37	04	-o.68
Minnesota	37	0.4	-o.68
Vermont	40	0.2	-0.69
Utah	40	02	o 6g
Oregon	40	0.2	-0 69
New Hampshire	40	02	-0.69
Montana	40	0.2	-0 69
Idaho	40	0.2	-0.69
South Dakota	46	0 1	-0.70
North Dakota	46	0.1	-0.70
Maine	46	0.1	-0.70

<sup>\*</sup> Source: US Census, 1930, Population, II, Table 14, p. 38.

Mean per cent (based on per cents of the 48 states), 9.51, standard deviation, 13.48.

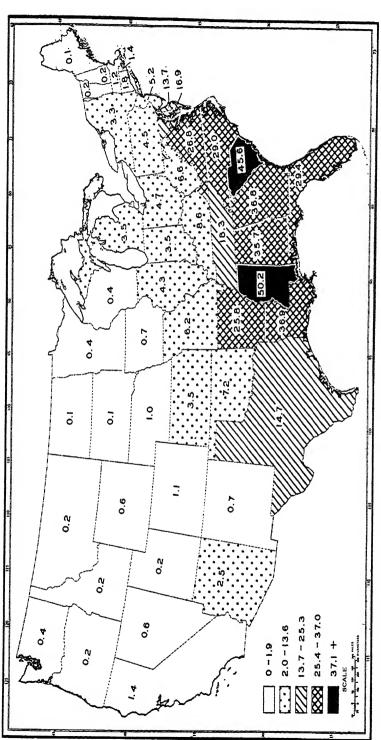


Fig. 135.—Per cent of population Negro, 1930. Source: Same as for Table 98. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

Table 98 and Figures 135 and 136 relate to the second aspect of composition of population which may be reflected in library development. They show what per cent of the total population is Negro. This population is largely centered in the Southeast, though migration to urban industrial centers in the Northeast and Midwest during the 1920's modified the situation in several states. The difficulties of support of dual institutions, the inequalities in provision for education and other public services, the large size of families, the high rate of illiteracy, and the excess of rural population have already been noted as contributing to the total cultural pattern of the region, and they

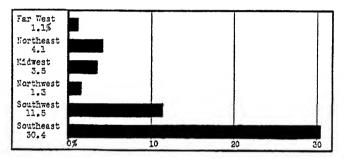


Fig. 136.—Regional summary of per cent of population Negro, 1930

may account in considerable measure for the backwardness in library development which characterizes the region.

The difficulty of generalizing concerning the part played by nativity and race in shaping the library map of America is so great that interpretation of the tables and figures dealing with these matters must, to a large extent, be left to the reader. It may be pointed out, however, that of the ten states which have the highest library development, four have the highest per cent of foreign-born, and three the lowest per cent of Negroes; whereas, of fifteen states having the lowest library index, twelve have the lowest per cent of foreign-born whites, and twelve, the highest per cent of Negroes. The regional summaries, in Figures 134 and 136, by their sharp reversal, vividly portray these differences when the situation is regarded from the total national point of view.

### SUMMARY

Any effort to account accurately for the library in the cultural pattern of America is fraught with well-nigh insuperable difficulties. The nation is made up of forty-eight states and embraces six major regions. The regions comprise a varying number of subregions and diversified areas; complexity characterizes every aspect of the nation's life.

This chapter has undertaken to deal with variations in the development of the library map of the United States which may be attributed in large measure to differences in geography (or environment) and population, since both have contributed extensively to the inequalities discovered. The study of the geographical aspects of the nation reveals that they have profoundly affected its cultural development. Deforestation, soil erosion, dust storms, land rendered submarginal in any way, bar the path to adequate local support of social agencies such as the school and the library and offer convincing evidence that social institutions cannot be supported adequately in an economic vacuum.

The part played by urbanization, by proportion of children to adults in the total population, by median size of families, by migration from state to state, or from region to region, by race, and by nativity is equally important and, perhaps, even more difficult to analyze. The library, if it is to be successfully introduced into all parts of rural America, will have to overcome obstacles inherent in the provision of public services for sparsely settled areas. New devices, new procedures must be provided. The nation, likewise, may be forced to come to grips with the fact that the provision of certain essential services for large population groups containing a high percentage of children will require aid through federal funds. The fact that such areas are major contributors to the growth of urban and industrial centers makes this a matter of the greatest importance. Finally, although nativity and race largely defy characterization and specification with respect to the influence they have exerted

in national development, they also must be considered realistically. America, as has been said, has been the veritable melting pot of the nations, and the American public library, as thousands of foreigners who have become American citizens have testified, has been one of the major agencies through which the melting process has been effected. It should now be so supported as to bring into high relief the qualities of excellence which the various elements of the total population may contribute to the America of tomorrow.

## CHAPTER XIV

# ECONOMIC ABILITY

TUDENTS of education have long attempted to measure the relative ability of different areas to support adequate educational systems. They have used numerous indices of cost of living and of economic ability, most of which have served their purpose in demonstrating wide inequalities between regions, states, counties, and smaller units in their ability to support schools. Three of the most important of these have recently been developed by Mr. Mort in Federal Support for Public Education, by Mr. and Mrs. Norton in Wealth, Children and Education,2 and by Mr. Chism, in The Economic Ability of the States to Finance Public Schools.3 Mr. Cheney constructed an "index of relative economic level" based on "available income, retail purchases, automobile ownership, etc.," in an attempt to evaluate the success or failure of the distribution policies and techniques of the book trade industry. He likewise constructed a "potential sales index" for books "based on cultural and economic indices" which he compared with actual book sales in each state, and concluded that the book market was underdeveloped in states for which the potential sales index considerably exceeded the actual sales index.4 Mr. Goodrich developed a plane-of-living index for each of the 3,071 counties of the United States, choosing as the bases of this index: (1) the

<sup>&</sup>lt;sup>1</sup> P. R. Mort, Federal Support for Public Education (New York: Bureau of Publications, Teachers College, Columbia University, 1936), p. 105.

<sup>&</sup>lt;sup>2</sup> J. K. Norton and M. A. Norton, *Wealth*, *Children and Education* (New York: Bureau of Publications, Teachers College, Columbia University, 1937), pp. 68–69.

<sup>&</sup>lt;sup>3</sup> L. L. Chism, *The Economic Ability of the States to Finance Public Schools.* Teachers College Contributions to Education, No. 669 (New York: Teachers College, Columbia University, 1936), p. 124.

<sup>40.</sup> H. Cheney, Economic Survey of the Book Industry, 1930–1931 (New York: National Association of Book Publishers, 1931), p. 62.

number of individual federal income tax returns for 1928, (2) the number of residence telephones in use January 1, 1930, and (3) the number of families who reported radio sets to the 1930 census.<sup>5</sup>

In all these studies, economic ability has been shown to be significantly related to school support, book distribution, and the prevailing standard of living. In the case of the schools, the data have been collected over so long a period and have been so carefully treated that the conclusions reached concerning both ability and effort of the states to support education are convincingly validated and generally accepted by the public.

The relation of economic ability to library development and expenditure, however, has not been subjected to equally extensive study. Mr. Purdy has shown that the relationship is significant; but his study covers only seven states in the Middle West, and data concerning libraries have not been generally available for exact studies of this nature. In the case of these seven states, however, Mr. Purdy found that "approximately 63 per cent of the variation in public library expenditures is associated with wealth as measured by the economic index."6 Library service is not a personal necessity in the sense that food and shelter are necessities, nor a social necessity in the sense that police and fire departments are essential. Hence, a community first supplies itself with those services which are immediately essential to its existence, and next establishes and maintains such other services as it considers pre-eminently desirable for its permanent well-being. In the poor community few or no economic resources may exist above the level of bare personal and social subsistence. In such a community the library, the school, and even the bill of fare may suffer unless outside aid comes to the rescue. The problem presented in this chapter, then, is to determine the variation in economic ability

<sup>&</sup>lt;sup>5</sup> Carter Goodrich et al., Migration and Economic Opportunity (Philadelphia: University of Pennsylvania Press, 1936), p. 18.

<sup>&</sup>lt;sup>6</sup> G. F. Purdy, "Public Library Service in the Middle West" (Unpublished Ph.D. dissertation, Graduate Library School, University of Chicago, 1936), pp. 72-73.

TABLE 99\*
Mean Annual Income Per Capita, 1929–33, Compared with Library Expenditure, 1934

			201	
S	_	Per Capita	STANDARD SCORE	
State	RANK	INCOME	Per Capita Income	Library Expenditure
Connecticut	I	\$749	1.51	1 84
New York	2	743	I 48	I 33
Rhode Island	3	725	1 37	1.20
California	4	716	1.32	1.96
New Jersey		715	1 31	1.20
Illinois	5 6	702	1 23	0.78
Massachusetts	7	694	1.19	3 27
Delaware	8	680	1.10	0 52
Pennsylvania	9	663	1.00	-0 19
Nevada	10	648	0 91	0.35
Ohio	11	633	0 82	1.58
Wyoming	12	631	0 81	0.65
Iowa	13	617	0 73	-0 20
Michigan	14	613	0 70	0.31
Montana	15	605	0.66	-0.36
Nebraska	16	590	0.55	-0.36
Wisconsin	17	588	0 56	0.57
Indiana	18	570	0 45	0.52
Washington	19	569	0.44	0.48
New Hampshire	20	566	0 42	1.24
Vermont	21	559	0 38	0 44
Maryland	22	552	0 34	-0 15
Oregon	23	536	0 25	1 07
Kansas	24	531	0 22	-0 49
Colorado	25	530	0.21	0 02
Minnesota	26	521	0 16	0 35
Maine	27	513	0 11	-0.24
Idaho	28	510	0 09	-o 53
Missouri	29	484	-0 06	-o 28
Arizona	30	483	-0 07	-0 99
South Dakota	31	461	-0 20	-0 40
Utah	32	44I	-0.32	0 02
West Virginia	33	405	-0.54	-1 04
Texas	34	384	-0 66	-0.87
North Dakota	35	366	-0.77	-o 87
Florida	36	355	-0.83	-0.74
New Mexico	37	346	-o 8g	80.1
Oklahoma	38	345	-0 8g	-o 87
Virginia	39	340	-0 g2	-0.96
North Carolina	40	313	-1 o8	-1.04
Louisiana.	41	303	-1.14	-1 04
Kentucky	42	252	-1 45	-o 8 <sub>7</sub>
Tennessee	43	246	-1.48	-0.79
Georgia	44	221	-ı 63	-ı ∞
South Carolina	45	201	-1.75	-o 87
Alabama	46	192	-1.80	-1.04
Arkansas	47	185	-1.85	-1.21
Mississippi	48	160	-2.∞	-1.21
	-			
		<u> </u>		

<sup>\*</sup> Source: Brookmire Econ. Serv., Inc., "Income of the American People, 1920-1933," Brookmire Special Reports: Brief Analysis of Timely Subjects (May 11, 1934), Table 19, pp. 3-4.

Mean per capita (based on means of the 48 states), \$495; standard deviation, \$168.

among the forty-eight states and the six regions of the United States, and to show the extent to which inequalities in library service may be explained by corresponding inequalities in wealth.

At least five types of statistics are conventionally employed in comparing the economic ability of different areas. These are: (1) statistics of personal income, which probably are the most appropriate for the purposes of this study; (2) statistics of accumulated wealth in the form of property, investments and the like, which are pertinent to the extent that they provide a taxation base; (3) data on the value of goods produced within an area, which value, though perhaps the best measure of true wealth, presents difficulties in interpretation; (4) information concerning the consumption of goods and services; and (5) measures of tax-paying ability as determined by applying a uniform tax system. Examples of all five types, as well as a composite index, are used in this chapter in order that the special bearing of each type on the existence of library facilities may be suggested and the extent and nature of the association between economic ability and library development carefully scrutinized.

### PERSONAL INCOME

Per capita income.—Of the various available studies of actual income, those prepared by the Brookmire Economic Service<sup>7</sup> seem most appropriate for use here. Table 99 and Figure 137 present data concerning the mean annual per capita income of the people of each state for the five-year period from 1929 to 1933. While the data on which the table and figure are based are open to numerous theoretical criticisms, there is good reason to believe that they represent something very similar to the actual distribution of income among the various states.

If per capita income (Fig. 137) is compared with library development, as summarized in the library index presented previously (Fig. 50), it is evident that twenty-three states are in the

<sup>&</sup>lt;sup>7</sup> Brookmire Economic Service, Inc., "Income of the American People, 1920–1933," Brookmire Special Reports: Brief Analysis of Timely Subjects (May 11, 1934), pp. 3-4.

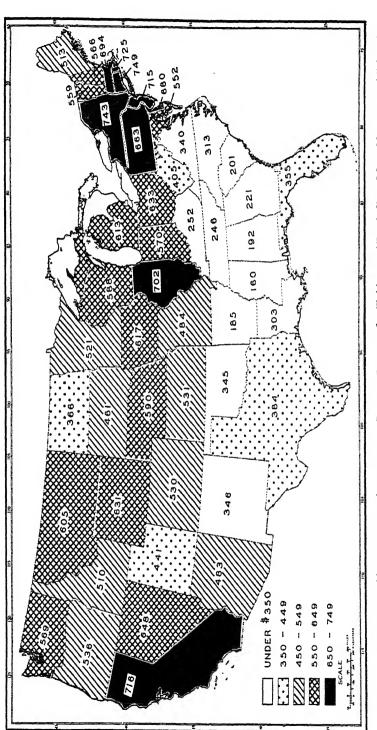


Fig. 137.—Mean annual income per capita, 1929-33. Source: Same as for Table 99. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

same interval with respect to libraries as with respect to per capita income, while one state varies two intervals, and one state, three. Pennsylvania stands three intervals higher with respect to per capita income than with respect to library service. Oregon ranks two intervals higher in library development than in income. The maximum degree of consistency between the two maps is found in the southeastern states which rank uniformly low in both.

Figure 138 presents the income data by regions. These data show a smaller regional variation than do the library data.

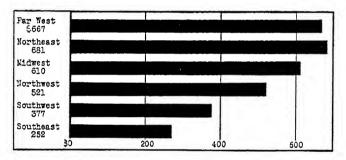


Fig. 138.—Regional summary of mean annual income per capita, 1929-33

Comparing Figure 138 with Figure 19 (Regional summary of per capita expenditure for public libraries), it is found that the Far West spends almost ten times as much money on public libraries, in proportion to population, as does the Southeast, while per capita incomes average only 2.6 times as high in the Far West as in the Southeast. This may be interpreted to suggest that in the Southeast the average income does not exceed, in general, the subsistence level, while in the Far West the average income provides a sufficient excess above subsistence to permit ten times the amount of support of public libraries which is possible in the Southeast. Again, it may reflect a difference in attitude held by the two regions as to the value of library service. It may also reflect the prevalence of county library service, and hence greater library coverage, in the Far West, since 45 per cent of the counties in that region have

county library service, as contrasted with only 4 per cent in the Southeast.8

Upon the assumption that library development is largely dependent upon economic ability to support libraries, a high degree of correlation would be expected to exist between expenditure for public library purposes and per capita income. An examination of the maps portraying the two (Figs. 18 and 137), to a large extent verifies this expectation. Twenty states are in the same interval on both maps; six states vary two intervals;

TABLE 100\*

SEVEN STATES COMPARED WITH RESPECT TO STANDARD SCORE OF PUBLIC LIBRARY EXPENDITURE AND OF PER CAPITA INCOME

State	Library Expenditure	Per Capita Income
Arizona.  Montana Nebraska Iowa. Maryland. Pennsylvania Delaware.	-0 99 -0 36 -0 36 -0 20 -0 15 -0 19 0 52	-0 07 0 66 0 57 0.73 0.34 1.∞ 1.10

<sup>\*</sup> Source Tables 19 and 99.

Pennsylvania, three. All of the seven states showing variation of two or more intervals rank higher with respect to per capita income than with respect to library expenditures. The standard scores indicating the variation are given in Table 100.

In so far as the data for per capita income are fairly representative of ability to support library service, it is clear that these seven states are more backward with respect to support of libraries than are the southeastern states, for example, which rank lower in library expenditure, but also rank correspondingly lower in per capita income. Thus it might be said, with proper

<sup>&</sup>lt;sup>8</sup> Computed on basis of data from C. B. Joeckel, *The Government of the American Public Library* (Chicago: University of Chicago Press, 1935), Table 14, pp. 321-22.

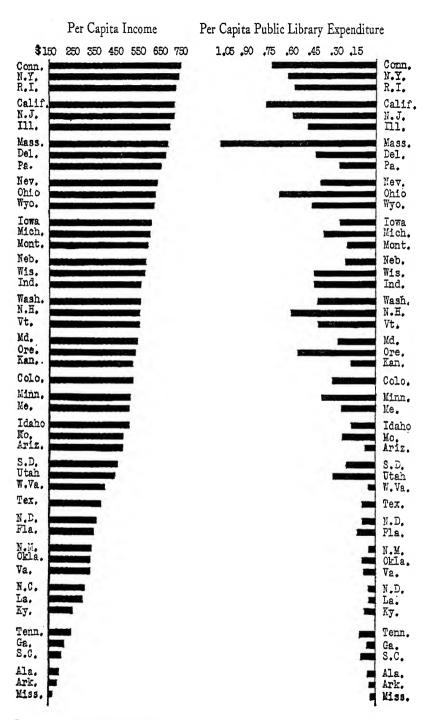


Fig. 139.—Comparison of per capita income and per capita public library expenditure

reservations, that library service in the Southeast is inadequately supported partly because that region cannot afford adequate support. However, it is true that in the seven states library expenditure is lower than per capita income would lead one to expect. The status of the other states may be compared by means of the appropriate tables.

Figure 139 presents in graphic form the relative status of each of the forty-eight states in per capita income and in library expenditure. In general, states which rank high in per capita income also rank high in their support of public library service. This consistency is particularly pronounced among the states of low per capita income. A few states which rank relatively high in income rank relatively low in library expenditure.

Income tax payments.—Another index of income is the amount of money paid as income taxes. This index may be considered a crude measure of the gross excess of income above a fairly adequate subsistence figure, and also a measure of the relative amounts of money which might be made available for public services by means of income taxes. It would thus appear that income tax receipts, adjusted to population, might provide a better index of ability to support library service than would the statistics of per capita income. Superficial comparison of Figure 140 with figures 50 and 137 reveals little correlation between per capita income tax payments and library development, or even between per capita income tax payments and per capita income. A more careful scrutiny of the tables, however, shows that California, Nevada, New York, Massachusetts, Connecticut, Rhode Island, and Illinois rank consistently high in library development and in each measure of income, while the southeastern states rank consistently low in both library development and per capita income tax payments. Arkansas and the Dakotas rank lowest in the latter particular. It is interesting to note that while Oregon, Vermont, and Wyoming rank in the bottom interval in per capita income tax payments, they rank in the highest interval in library development. To the extent that the income tax data are a fair criterion of ability to support li-

TABLE 101\* FEDERAL INCOME TAX PAYMENTS PER CAPITA, 1934

State	Rank	Payments per Capita	Standard Score
Delaware	I	\$54.21	5.84
New York	2	20.72	1.83
Nevada	3	19.07	1 64
Maryland	4	11.74	0 76
New Jersey		10.23	0 58
California	5 6	10.12	0 56
Connecticut	Į.		0 51
3.6	7 8	9.65	
	,	9 32	0 47
Rhode Island	9	8.91	0 42
Illinois	IO	8.33	0 35
Pennsylvania	II	6.90	0 18
Missouri	12	6.08	0 08
Michigan	13	5.82	0 05
Ohio	14	5.70	0.04
Colorado	15	4 - 43	-0.12
Maine	16	4.30	-0.13
Minnesota	17	4.11	-0 15
North Carolina	18	4.08	-0.16
Virginia	19	3 63	-0.21
Mississippi	20	3 I4	-0.27
New Hampshire	21	3.13	-0.27
Florida	22	3.13	-0.28
Texas Indiana	23	2.78	-0.31
	24	2.75	-0.32
Wisconsin	25	2.65	-0.33
Oklahoma	26	2.47	<b>−</b> 0.35
Washington	27	2.29	<b>−</b> 0.37
Louisiana	28	2.28	-0.37
West Virginia	29	2.07	-0.40
Tennessee	30	1.97	-0 4I
Kentucky	30	1.97	-0 41
Nebraska	32	1.91	-0.42
Wyoming	33	1.87	-0.42
Oregon	34	1.82	-0.43
Utah	35	1.80	-0 43
Vermont	36	1.79	-0.43
Georgia	37	1.73	-0.44
Iowa	38	1.72	-0.44
Kansas	39	1.60	-0.45
Montana	40	1.00	-0 49
South Carolina	41 41	1.18	-0 49 -0 51
Arizona	42	1.10	
Idaho			-0.51
4 1 1	43	0 90	-0 54
	44	0.73	-o 56
	45	0 68	-0.56
South Dakota	46	0 50	-o 59
Arkansas	47	0.48	—o.59
North Dakota	48	0.43	-0.59
		į,	

<sup>\*</sup> Source: U.S. Treas. Dept, Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1934 (Wash.: Govt. Print. Off., 1935), p. 321.

Mean per capita (based on means of the 48 states), \$5.40; standard deviation, \$8.35.

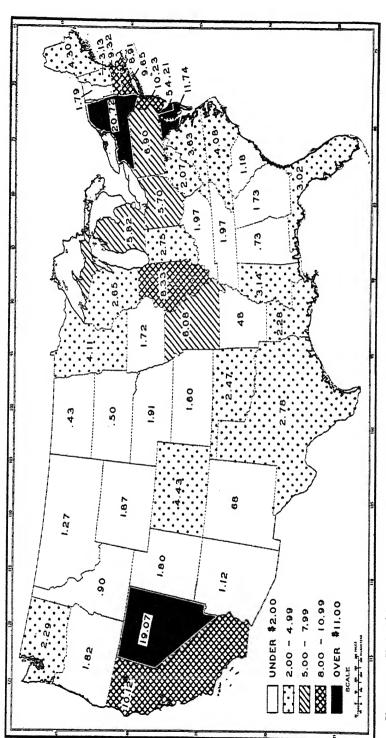


Fig. 140.—Federal income tax payments per capita, 1934. Source: Same as for Table 101. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

brary service, these three states appear to be exerting greater effort to support libraries than are any others. This suggestion is supported by the data presented concerning per capita library expenditure (Fig. 18), which show that the three states spend more on library service, in relation to their income, than do most of the others.

The chief point shown by a comparison of Table 101 and Figures 140 and 141 with Figures 50 and 51 is, perhaps, that the Northeast, though ranking below the Far West in library service, ranks significantly above it in per capita income tax payments. The amount per capita paid by the resident of Delaware

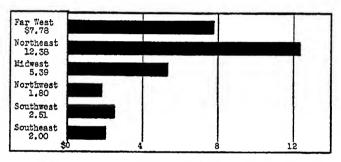


Fig. 141.—Regional summary of federal income tax payments per capita, 1934

(\$54.21) is 126 times the 43 cents paid by the resident of North Dakota; but the very high amount per capita in Delaware is clearly out of line with payments in general throughout the region.

Table 102 and Figures 142 and 143 require little comment. They show the per cent of population filing income tax returns in 1931. The range is from 4.97 in New York to 0.49 in Mississippi.

Mean annual manufacturing wage.—Mr. Wirth, in a study of newspaper and magazine circulation, makes the observation that a large population with a money income is a fundamental requisite to the support of newspapers and magazines. The amount of annual average wages paid in manufacturing should bear a similarly significant relation to library support. Table 103 supplements the data already given concerning income,

TABLE 102\*
Per Cent of Population Filing Income Tax Returns, 1931

State	Rank	Per Cent Filing Returns	Standard Score
New York	1	4 97	2 46
Massachusetts	2	4 52	2.07
New Jersey	3	4 35	1 92
California	4	4 25	1 83
Connecticut		4 02	1.63
Nevada	5 6	3.73	1.38
Maryland	7	3 79	1.36
Illinois	8	3.51	1 19
Delaware	9	3 45	1 14
Washington	10	3.28	0.99
Rhode Island	II	3 22	0.94
Wisconsin	12	2.86	0 63
Pennsylvania	13	2 76	0.54
New Hampshire	14	2.67	0.47
Wyoming	15	2 58	0.39
Ohio	16	2.45	0.28
Michigan	17	2.43	0.26
Colorado	18	2 42	0 25
Missouri	19	2.20	0.06
Vermont	20	2.17	0.03
Oregon	21	2.09	-0 03
Minnesota	22	2.05	-0.07
Maine	23	2.03	-0.09
Utah	24	1.91	-0.19
Montana	25	1 81	-0.28
Arizona	25	1.81	-0.28
Nebraska	27	1.73	-0.35
Florida	28	1.68	-0.39
Indiana	29	1.67	-0.40
Texas	30	1.51	-0.54
Kansas	31	1.46	-0.58
Virginia	32	1.43	-0.60
Louisiana	33	1.36	-0.67
Idaho	34	1.31	-0.71
West Virginia	35	1.27	-0.74
New Mexico	36	1.26	-0.75
Iowa	37	1.21	-0.80
Oklahoma	38	1 17	-0.83
Tennessee	39	1 07	-0.92
South Dakota	40	1.06	-0.93
Kentucky	41	1.03	-0.95
North Dakota	4I	I 03	-0.95
Georgia	43	0.88	-1.08
Alabama .	44	0.73	-1.21
North Carolina.	45	0.70	-1.24
South Carolina .	46	0.60	-1.32
Arkansas	47	0 53	-1.38
Mississippi	48	0.49	-1.42
	'		

<sup>\*</sup> Source U.S. Bur. For. and Dom. Comm., Statistical Abstract of the United States, 1034 (Wash.: Govt. Print. Off., 1934), pp. 174-75.

Mean per cent (based on per cents of the 48 states), 2 13; standard deviation, 1.15.

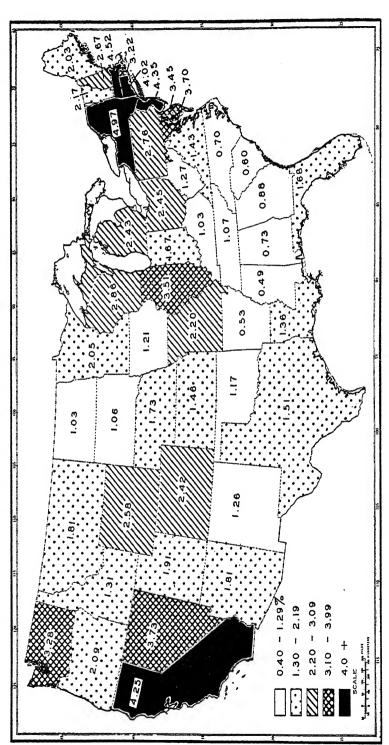


Fig. 142.—Per cent of population filing income tax returns, 1931. Source: Same as for Table 102. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

and shows the mean annual manufacturing wage received in each state in 1933. Perhaps a map showing the number of manufacturing wage earners in each state should be presented in conjunction with these data. However, Figure 148, showing the value added to raw materials by manufacturing, will serve to show the relative significance of a high or low manufacturing wage in a given state. Thus the high wage scale indicated in Nevada, Montana, Wyoming, and North Dakota is of little significance in relation to library development because of the

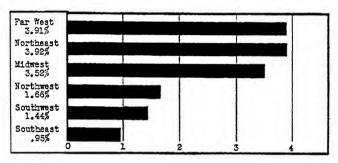


Fig. 143.—Regional summary of per cent of population filing income tax returns, 1931.

very small number of manufacturing wage earners in those states. Furthermore, as was also true of the other income maps, Figure 144 makes no allowance for spatial variation in cost of living, which, as shown by Mort, is much greater in New York and Illinois than in the states of the Southeast. Figure 145 summarizes these data by regions. Clearly the manufacturing wage earners of the Southeast are less able than those of any other region both to buy their own reading materials and to contribute to the support of library service. Probably these data are fairly representative of wages in general in the six regions, since wage competition between the manufacturing industries, the construction industries, agriculture, mining, etc., tends to keep wages for all on a comparable plane.

<sup>&</sup>lt;sup>9</sup> Mort, op. cit., p. 105.

TABLE 103\*
MEAN ANNUAL MANUFACTURING WAGE, 1933

State	Rank	Mean Wage	Standard Score
Wyoming	1	\$1,306	2 62
Nevada	2	1,244	2 26
Montana	3	1,067	1 25
North Dakota	4	1,060	1 21
New York	5	1,029	1 03
California	6	1,000	0 87
Arizona	7	993	0 83
Michigan	8	988	0 80
Nebraska	9	968	0.69
Illinois	10	960	0 64
New Jersey	11	958	0 62
Kansas	12	955	0 61
South Dakota	13	953	0.60
Colorado	14	942	0.53
Ohio	15	930	0 46
Idaho	16	922	0 42
Oklahoma	16	922	0 42
Minnesota	18	919	0 40
Washington	19	917	0 40
Utah	20	910	0 35
Massachusetts	21	889	0 23
West Virginia	21	889	0 23
Delaware	2,3	881	0 18
Iowa	24	867	0.10
Indiana	25	865	0.09
Connecticut	26	860	0 06
Missouri	27	853	0 02
Oregon	28	847	-0 01
Pennsylvania	29	837	-0 07
Wisconsin	29	837	-0 07
Vermont	31	826	-0 13
Maryland	32	824	-0.14
Rhode Island	33	823	-0 15
Texas	34	804	-0 26
Kentucky	35	790	-o <sub>34</sub>
New Hampshire	36	787	-0.36
New Mexico	37	779	-0 40
Maine	38	771	-0 45
Virginia.	39	700	-0.85
Louisiana	40	672	-I OI
Tennessee	41	641	-1.19
Alabama	42	570	-1.19 -1 60
North Carolina	1	567	-1 60 -1 62
Florida	43		I.
Arkansas	44	545	-I.74
South Carolina	45 46	541	-1 77 -1 86
Georgia		525	-1 86 -1 86
300 7 1 1	47	524	
Mississippi	48	490	-2.06

<sup>\*</sup> Source US Bur. Census, Bunnial Census of Manufactures: 1933 (Wash.: Govt Print. Off., 1936), chap ii, Table 3, p 20.

Mean wage (based on means of the 48 states), \$\$49, standard deviation, \$174.

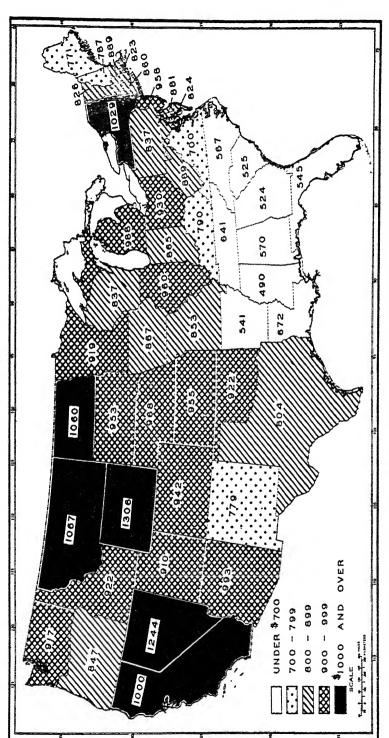


Fig. 144.—Mean annual manufacturing wage, 1933. Source: Same as for Table 103. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

## ACCUMULATED WEALTH

Per capita savings deposits and life insurance.—A serious limitation of many indices of economic ability lies in their failure to distinguish between liquid and nonliquid wealth. Thus many indices of true wealth, as in the case of Iowa, for example, rank very high because of high land values. Real estate valuations are of importance in an area largely dependent upon taxation of such property for government income, but comparisons between states on a basis of data weighted heavily with this form of wealth are open to serious criticism as indices

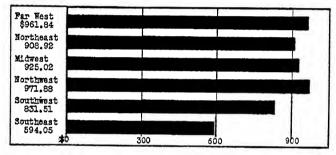


Fig. 145.—Regional summary of mean annual manufacturing wage, 1933

of relative ability to support social institutions and services. Income statistics are not influenced by this consideration and hence seem theoretically to be of considerable value as an index of the sort of economic ability which library support requires. Since tax-paying ability, which involves an estimate of the wealth that is significant from the point of view of support of government services, is discussed in a later section of this chapter, only two indices of relatively fluid accumulated wealth will be presented in this section. Tables 104 and 105 and Figures 146 and 147, presenting data concerning savings deposits and life insurance, indicate the tremendous concentration of these particular forms of fluid wealth in the Northeast. The range in the distribution of per capita savings is from \$610.59 in Massachusetts to \$19.72 in South Carolina, or 30 to 1. This high concentration has created economic and social problems

TABLE 104\*
Savings Deposits per Capita, 1933

State	Rank	Savings Deposits per Capita	Standard Score
		<b> </b>	
Massachusetts	I	\$610 59	2 71
New York	2	582.79	2 55
Connecticut	3	536 94	2 27
Rhode Island	4	520.37	2 17
Vermont	5 6	506.60	2 09
New Hampshire	6	478.53	1.92
Maine	7	378 07	1 31
California	8	299.29	0.83
New Jersey	9	299 18	0 83
Maryland	IO	285 81	0.75
Delaware	11	263.34	0 62
Pennsylvania	12	232.94	0 43
Nevada	13	182 40	0 13
Michigan	14	167 31	0 04
Minnesota	15	165.74	0.03
Ohio	16	153.12	-0 05
Wisconsin	17	142.80	-0.11
Washington	18	115 58	-0 27
Illinois	19	109.50	-0.31
Iowa	20	103.61	-0 35
Oregon	21	102.49	-0.35
Colorado	22	94.44	-0.40
Utah	23		-0 40
11	24	93.84 93.20	-0 4I
Montana Virginia	25	93 20 90 OI	
	25 26	88.69	-0.43
3.00		1	-0.44
	27 28	87.94	-0.44
Indiana	1	79 46	-0 49
West Virginia Nebraska	29	67.79	-0.56
Nebraska North Dakota	30	65 34	-0.58 -0.61
	31	59 21	-0 62
South Dakota	32	58.10	i .
Louisiana	33	57 83	-0.62
Idaho	34	54 41	-0 64
Kentucky	35	54.10	-0 64
Florida	36	49.09	-0 67
Kansas	37	48.83	-o 68
Tennessee	38	48 39	-0 68
Arizona	39	45.76	-0 69
Georgia	40	39 91	-o 73
Oklahoma	4I	36.83	-0 75
Texas	42	31.42	-0 78
Mississippi	43	28 67	-0 80
Alabama	44	27.41	-0 81
Arkansas	45	23 15	-0 83
New Mexico	46	22 84	-0 83
North Carohna	47	21.09	-0 84
South Carolina	48	19 72	-0 85
		1	

<sup>\*</sup> Source: "International Yearbook Number," Editor and Publisher, LXVI (January 27, Sec. 2, 1934), 203.

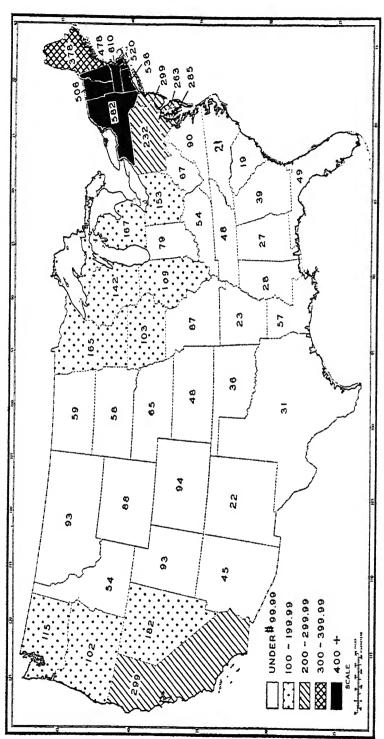
Mean per capita (based on means of the 4S states), \$160.93, standard deviation, \$165.74.

TABLE 105\* Life Insurance per Capita, 1934

State         Rank         Life Insurance per Capita         Standard Score           Delaware.         1         \$1,476         2 73           New York.         1         1,476         2 73           Connecticut.         3         1,170         1 73           New Jersey.         4         1,107         1 52           Massachusetts.         5         1,063         1 38           Rhode Island         6         1,044         1 32           Illinois.         7         1,022         1 24           Maryland.         8         997         1 16           Pennsylvania.         9         972         1.08           Ohio.         10         922         0 92           Missouri.         11         836         0 63           California.         12         828         0 61           New Hampshire.         13         784         0 46           Indiana         14         728         0 28           Wisconsin.         18         709         0 22           Washington.         19         699         0 18           Maine.         20         691         0 16           Minnes				
New York.         1         1,476         2 73           Connecticut.         3         1,170         1 73           New Jersey.         4         1,107         1 52           Massachusetts.         5         1,063         1 38           Rhode Island         6         1,044         1 32           Illinois.         7         1,022         1 24           Maryland.         8         997         1 16           Pennsylvania.         9         972         1.08           Ohio.         10         922         0 92           Missouri.         11         836         0 63           California.         12         828         0 61           New Hampshire.         13         784         0 46           Indiana         14         728         0 28           Michigan         15         715         0 24           Colorado.         16         714         0 23           Vermont.         17         711         0 22           Wisconsin.         18         709         0 22           Washington         19         699         0 18           Maine.         20	State	Rank		Standard Score
New York.         1         1,476         2 73           Connecticut.         3         1,170         1 73           New Jersey.         4         1,107         1 52           Massachusetts.         5         1,063         1 38           Rhode Island         6         1,044         1 32           Illinois.         7         1,022         1 24           Maryland.         8         997         1 16           Pennsylvania.         9         972         1.08           Ohio.         10         922         0 92           Missouri.         11         836         0 63           California.         12         828         0 61           New Hampshire.         13         784         0 46           Indiana         14         728         0 28           Michigan         15         715         0 24           Colorado.         16         714         0 23           Vermont.         17         711         0 22           Wisconsin.         18         709         0 22           Washington         19         699         0 18           Maine.         20	Delaware	ī	\$1.476	2 73
Connecticut.         3         1,170         1 73           New Jersey.         4         1,107         1 52           Massachusetts.         5         1,063         1 38           Rhode Island         6         1,044         1 32           Illinois.         7         1,022         1 24           Maryland.         8         997         1 16           Pennsylvania.         9         972         1 08           Ohio         10         922         0 92           Missouri.         11         836         0 63           California.         12         828         0 61           New Hampshire.         13         784         0 46           Indiana.         14         728         0 28           Michigan.         15         715         0 24           Colorado.         16         714         0 23           Vermont.         17         711         0 22           Washington.         19         699         0 18           Maine.         20         691         0 16           Minnesota.         21         689         0 15           Nebraska.         22				
New Jersey.       4       1,107       1 52         Massachusetts.       5       1,063       1 38         Rhode Island       6       1,044       1 32         Illinois.       7       1,022       1 24         Maryland.       8       997       1 16         Pennsylvania.       9       972       1.08         Ohio.       10       922       0 92         Missouri.       11       836       0 63         California.       12       828       0 61         New Hampshire.       13       784       0 46         Indiana       14       728       0 28         Michigan       15       715       0 24         Colorado.       16       714       0 23         Vermont.       17       711       0 22         Wisconsin.       18       709       0 22         Washington.       19       699       0 18         Maine.       20       691       0 16         Minnesota.       21       689       0 15         Nebraska.       22       686       0 14         Iowa.       23       656       0 04		3		
Massachusetts.         5         1,063         1 38           Rhode Island         6         1,044         1 32           Illinois.         7         1,022         1 24           Maryland.         8         997         1 16           Pennsylvania.         9         972         1.08           Ohio         10         922         92           Missouri.         11         836         0 63           California.         12         828         0 61           New Hampshire.         13         784         0 46           Indiana         14         728         0 28           Michigan         15         715         0 24           Colorado.         16         714         0 23           Vermont.         17         711         0 22           Wisconsin.         18         709         0 22           Washington.         19         699         0 18           Maine.         20         691         0 16           Minnesota.         21         689         0 15           Nebraska.         22         686         0 14           Iowa         23         656				
Rhode Island         6         1,044         1 32           Illinois         7         1,022         1 24           Maryland         8         997         1 16           Pennsylvania         9         972         1 08           Ohio         10         922         0 92           Missouri         11         836         0 63           California         12         828         0 61           New Hampshire         13         784         0 46           Indiana         14         728         0 28           Michigan         15         715         0 24           Colorado         16         714         0 23           Vermont         17         711         0 22           Wisconsin         18         709         0 22           Washington         19         699         0 18           Maine         20         691         0 16           Minnesota         21         689         0 15           Nebraska         22         686         0 14           Iowa         23         656         0.04           Oregon         24         643         0.0				
Illinois.		6		
Maryland         8         997         I 16           Pennsylvania         9         972         I.08           Ohio         10         922         0 92           Missouri         11         836         0 63           California         12         828         0 61           New Hampshire         13         784         0 46           Indiana         14         728         0 28           Michigan         15         715         0 24           Colorado         16         714         0 23           Vermont         17         711         0 22           Wisconsin         18         709         0 22           Washington         19         699         0 18           Maine         20         691         0 16           Minnesota         21         689         0 15           Nebraska         22         686         0 14           Iowa         23         656         0.04           Oregon         24         643         0 ∞           Utah         25         577         -0 22           Kansas         26         537         -0 35				_
Pennsylvania.       9       972       1.08         Ohio       10       922       0 92         Missouri.       11       836       0 63         California.       12       828       0 61         New Hampshire.       13       784       0 46         Indiana       14       728       0 28         Michigan       15       715       0 24         Colorado.       16       714       0 23         Vermont.       17       711       0 22         Wisconsin.       18       709       0 22         Washington       19       699       0 18         Maine.       20       691       0 16         Minnesota       21       689       0 15         Nebraska       22       686       0 14         Iowa       23       656       0.04         Oregon       24       643       0 ∞         Utah       25       577       −0 22         Kansas       26       537       −0 35         Virginia       27       509       −0 44         Montana       28       487       −0 51         Nevada				
Ohio         10         922         0 92           Missouri         11         836         0 63           California         12         828         0 61           New Hampshire         13         784         0 46           Indiana         14         728         0 28           Michigan         15         715         0 24           Colorado         16         714         0 23           Vermont         17         711         0 22           Wisconsin         18         709         0 22           Washington         19         699         0 18           Maine         20         691         0 16           Minnesota         21         689         0 15           Nebraska         22         686         0 14           Iowa         23         656         0.04           Oregon         24         643         0 ∞           Utah         25         577         −0 22           Kansas         26         537         −0 35           Virginia         27         509         −0 44           Montana         28         487         −0 51				1.08
Missouri         11         836         0 63           California         12         828         0 61           New Hampshire         13         784         0 46           Indiana         14         728         0 28           Michigan         15         715         0 24           Colorado         16         714         0 23           Vermont         17         711         0 22           Wisconsin         18         709         0 22           Washington         19         699         0 18           Maine         20         691         0 16           Minnesota         21         689         0 15           Nebraska         22         686         0 14           Iowa         23         656         0.04           Oregon         24         643         0 ∞           Utah         25         577         -0 22           Kansas         26         537         -0 35           Virginia         27         509         -0 44           Montana         28         487         -0 51           Nevada         29         482         -0 53 <td></td> <td></td> <td></td> <td></td>				
California         12         828         0 61           New Hampshire         13         784         0 46           Indiana         14         728         0 28           Michigan         15         715         0 24           Colorado         16         714         0 23           Vermont         17         711         0 22           Wisconsin         18         709         0 22           Washington         19         699         0 18           Maine         20         691         0 16           Minnesota         21         689         0 15           Nebraska         22         686         0 14           Iowa         23         656         0.04           Oregon         24         643         0 0           Utah         25         577         0 22           Kansas         26         537         0 35           Virginia         27         509         0 44           Montana         28         487         0 51           Nevada         29         482         0 53           West Virginia         30         454         0 62 <td></td> <td></td> <td></td> <td>· .</td>				· .
New Hampshire         13         784         0 46           Indiana         14         728         0 28           Michigan         15         715         0 24           Colorado         16         714         0 23           Vermont         17         711         0 22           Wisconsin         18         709         0 22           Washington         19         699         0 18           Maine         20         691         0 16           Minnesota         21         689         0 15           Nebraska         22         686         0 14           Iowa         23         656         0.04           Oregon         24         643         0 0           Oregon         24         643         0 0           Utah         25         577         0 22           Kansas         26         537         0 35           Virginia         27         509         0 44           Montana         28         487         0 51           Nevada         29         482         0 53           West Virginia         30         454         0 62				
Indiana         14         728         0 28           Michigan         15         715         0 24           Colorado         16         714         0 23           Vermont         17         711         0 22           Wisconsin         18         709         0 22           Washington         19         699         0 18           Maine         20         691         0 16           Minnesota         21         689         0 15           Nebraska         22         686         0 14           Iowa         23         656         0.04           Oregon         24         643         0 00           Utah         25         577         -0 22           Kansas         26         537         -0 35           Virginia         27         509         -0 44           Montana         28         487         -0 51           Nevada         29         482         -0 53           West Virginia         30         454         -0 62           Texas         31         453         -0 62           Wyoming         32         439         -0 .67 <td></td> <td></td> <td></td> <td>1</td>				1
Michigan         15         715         0 24           Colorado.         16         714         0 23           Vermont.         17         711         0 22           Wisconsin.         18         709         0 22           Wisconsin.         19         699         0 18           Maine.         20         691         0 16           Minnesota.         21         689         0 15           Nebraska.         22         686         0 14           Iowa.         23         656         0.04           Oregon.         24         643         0 ∞           Utah.         25         577         −0 22           Kansas.         26         537         −0 35           Virginia.         27         509         −0 44           Montana.         28         487         −0 51           Nevada.         29         482         −0 53           West Virginia.         30         454         −0 62           Texas.         31         453         −0 67           Tennessee.         32         439         −0.67           Kentucky.         34         434 <td< td=""><td></td><td></td><td>, ,</td><td></td></td<>			, ,	
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Oregon         24         643         0 ∞           Utah         25         577         -0 22           Kansas         26         537         -0 35           Virginia         27         509         -0 44           Montana         28         487         -0 51           Nevada         29         482         -0 53           West Virginia         30         454         -0 62           Texas         31         453         -0 62           Wyoming         32         439         -0.67           Tennessee         32         439         -0.67           Kentucky         34         434         -0.69           Florida         35         421         -0.73           Oklahoma         36         401         -0 79           Idaho         37         400         -0 80           Louisiana         38         397         -0 81           Georgia         39         396         -0 81           South Dakota         40         355         -0 94           North Carolina         41         348         -0 97				
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Kansas.       26       537       -0 35         Virginia       27       509       -0 44         Montana       28       487       -0 51         Nevada       29       482       -0 53         West Virginia       30       454       -0 62         Texas.       31       453       -0 62         Wyoming.       32       439       -0.67         Tennessee.       32       439       -0.67         Kentucky.       34       434       -0.69         Florida.       35       421       -0.73         Oklahoma       36       401       -0.79         Idaho.       37       400       -0.80         Louisiana       38       397       -0.81         Georgia       39       396       -0.81         South Dakota       40       355       -0.94         North Carolina       41       348       -0.97		•	,	l .
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Nevada     29     482     −0 53       West Virginia     30     454     −0 62       Texas     31     453     −0 62       Wyoming     32     439     −0.67       Tennessee     32     439     −0.67       Kentucky     34     434     −0.69       Florida     35     421     −0.73       Oklahoma     36     401     −0 79       Idaho     37     4∞     −0 80       Louisiana     38     397     −0 81       Georgia     39     396     −0 81       South Dakota     40     355     −0 94       North Carolina     41     348     −0 97				
West Virginia.       30       454       -0 62         Texas.       31       453       -0 62         Wyoming.       32       439       -0.67         Tennessee.       32       439       -0.67         Kentucky.       34       434       -0.69         Florida.       35       421       -0.73         Oklahoma       36       401       -0.79         Idaho.       37       400       -0.80         Louisiana.       38       397       -0.81         Georgia.       39       396       -0.81         South Dakota       40       355       -0.94         North Carolina.       41       348       -0.97				
Texas         31         453         -0 62           Wyoming         32         439         -0.67           Tennessee         32         439         -0.67           Kentucky         34         434         -0.69           Florida         35         421         -0.73           Oklahoma         36         401         -0.79           Idaho         37         400         -0.80           Louisiana         38         397         -0.81           Georgia         39         396         -0.81           South Dakota         40         355         -0.94           North Carolina         41         348         -0.97	West Virginia	-		
Wyoming.     32     439     -0.67       Tennessee.     32     439     -0.67       Kentucky.     34     434     -0.69       Florida.     35     421     -0.73       Oklahoma     36     401     -0.79       Idaho.     37     400     -0.80       Louisiana.     38     397     -0.81       Georgia.     39     396     -0.81       South Dakota     40     355     -0.94       North Carolina.     41     348     -0.97	Texas			
Tennessee     32     439     -0.67       Kentucky     34     434     -0.69       Florida     35     421     -0.73       Oklahoma     36     401     -0.79       Idaho     37     400     -0.80       Louisiana     38     397     -0.81       Georgia     39     396     -0.81       South Dakota     40     355     -0.94       North Carolina     41     348     -0.97	Wyoming	_		1
Kentucky     34     434     -0.69       Florida     35     421     -0.73       Oklahoma     36     401     -0.79       Idaho     37     4∞     -0.80       Louisiana     38     397     -0.81       Georgia     39     396     -0.81       South Dakota     40     355     -0.94       North Carolina     41     348     -0.97				
Florida		_		
Oklahoma     36     401     −0 79       Idaho     37     4∞     −0 80       Louisiana     38     397     −0 81       Georgia     39     396     −0 81       South Dakota     40     355     −0 94       North Carolina     41     348     −0 97	Florida			_
Idaho     37     400     -0 80       Louisiana     38     397     -0 81       Georgia     39     396     -0 81       South Dakota     40     355     -0 94       North Carolina     41     348     -0 97	Oklahoma			
Louisiana       38       397       -0 81         Georgia       39       396       -0 81         South Dakota       40       355       -0 94         North Carolina       41       348       -0 97	Idaho			
Georgia     39     396     -0 81       South Dakota     40     355     -0 94       North Carolina     41     348     -0 97				
South Dakota         40         355         -0 94           North Carolina         41         348         -0 97				
North Carolina 41 348 -0 97				
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Arizona 44 321 -1.06				
Alabama 45 291 -1 15				
Arkansas				
New Mexico 47 236 -1 33				
Mississippi	Mississippi			
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<sup>\*</sup> Source: The Insurance Yearbook, 1934-35: Life Insurance Volume (Philadelphia: The Spectator, 1934), pp. 810-70.

Mean per capita (based on means of the 48 states), \$643; standard deviation, \$304 91.



F16. 146.—Savings deposits per capita, 1933. Source: Same as for Table 104. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

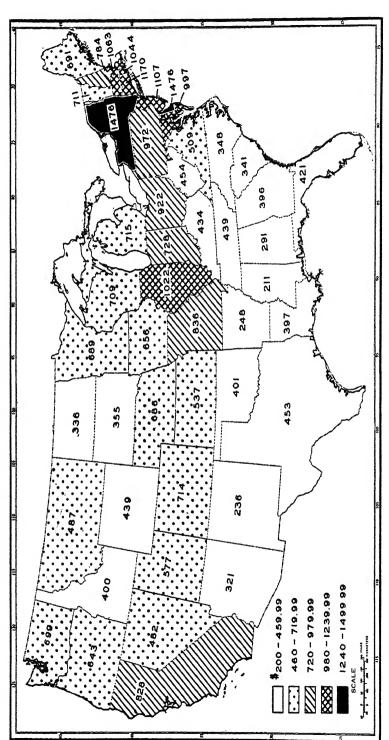


Fig. 147.—Life insurance per capita, 1934. Source: Same as for Table 105. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.

TABLE 106\*
Value per Capita Added by Manufacture, 1930

_		VALUE ADDED		
STATE	RANK	Total (111 Thousands)	Per Capita	Standard Score
Connecticut	I	\$ 806,214	\$501.72	2.26
Rhode Island .	2	324,078	471.39	2 04
New Jersey	3	1,771,430	438.33	1 79
Ohio	4	2,889,804	434.77	1 76
Michigan	5	2,067,344	426 93	1.71
Massachusetts	6	1,710,729	402.56	1.52
New York	7	4,973,920	395 13	I 47
Illinois	8	2,930,038	383 98	I 39
Pennsylvania	9	3,430,606	356.19	1.18
Indiana	10	1,136,463	350.92	I 14
Wisconsin	11	949,842	323 18	0 93
New Hampshire	12	147,132	316 21	0 88
Delaware	13	69,151	290 09	0 69
Maryland	14	422,097	258 71	0.45
California	15	1,349,191	237 65	0 30
Washington	16	367,149	234 84	0 28
Maine	17	174,385	218.69	0.16
North Carolina	18	693,013	218 60	0 16
Oregon	19	206,542	216.55	0 15
Vermont	20	77,260	214 84	0.13
Missouri	21	777,497	214 22	0 12
Minnesota	22	404,995	157 96	—o зо
Virginia	23	380,086	156 94	-o 30
Wyoming	24	33,628	149 08	-o 36
West Virginia	25	251,615	145 51	<b>—</b> о 39
Iowa	26	323,820	131 05	-0.50
Tennessee	27	322,898	123 41	-0.55
Colorado	28	122,331	118 10	-o 59
Louisiana	29	246,497	117 29	-0 60
Montana	30	61,249	113 93	-0 62
Utah	31	56,727	111.70	-0.64
Kansas	32	205,367	109.18	-0.66
Georgia	33	294,649	101 31	-0.72
[daho	3 <del>4</del>	44,489	99 97	-0.73
Alabama	35	258,125	97 54	-0.75
Florida	36	135,488	92 28	-0.78
South Carolina	37	159,351	91.65	-0.79
Kentucky	38	236,080	90 29	-0.80
Nevada	39	8,065	88 57	-o.81
Nebraska	40	119,994	87.08	-0.82
Γexas	41	460,307	79.03	<b>−</b> 0.88
Arizona	42	32,289	74 <sup>1</sup> 3	-0.92
Oklahoma	43	149,404	62 35	10.1
Mississippi	44	107,325	53 40	—I.07
Arkansas	45	94,255	50.83	-1.09
South Dakota	46	22,681	32.74	-1.23
New Mexico	47	11,278	26.64	-1.27
North Dakota	48	15,637	* 22.97	-1.30

<sup>\*</sup>Source: U.S. Census: 1930, Manufactures: 1920, III, Table 4, p. 17.

Mean per capita (based on means of the 48 states), \$197.72; standard deviation, \$134.35; U.S. total, \$31,832,515,000.

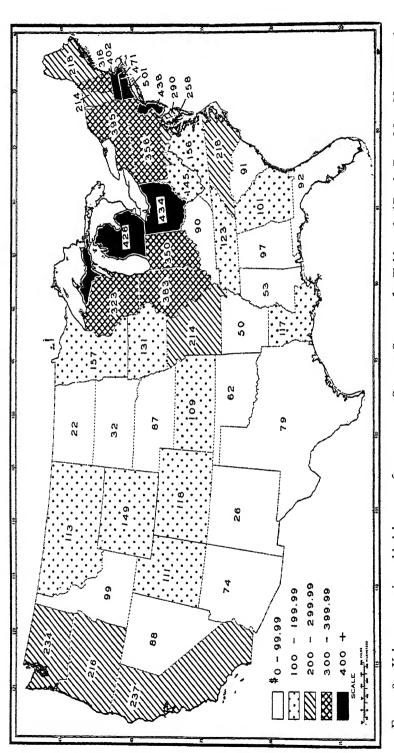


FIG. 148.—Value per capita added by manufacture, 1930. Source: Same as for Table 106. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

of which the implications are by no means limited to library development. Like the operation of the protective tariff, which for more than a century has frequently benefitted industry at the expense of agriculture, it has complicated the adequate support of social institutions and services in other regions.

## WEALTH ADDED BY MANUFACTURE AND AGRICULTURE

Value added by manufacture.—The creation of wealth depends to a great extent upon manufacture and agriculture, although a few states rely in large measure upon mining for their production of wealth. Wide variation is exhibited in ability to in-

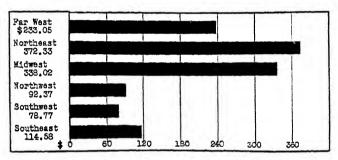


Fig. 149.—Regional summary of value per capita added by manufacture, 1930

crease wealth by these means. Table 106 shows the value added per capita by manufacturing in 1930. Manufacturing is heavily concentrated in the Northeast, in parts of the Midwest, and to a less extent in the Far West, as well as in North Carolina in the Southeast. These areas of concentration are associated with denseness of population, large numbers of wage earners, and relative liquidity of wealth. If the data are compared with those relating to mean manufacturing wages (Table 103 and Figs. 144 and 145), it will be seen that in Massachusetts, Connecticut, Rhode Island, and North Carolina, states in which manufacturing is of considerable importance as a source of income, the mean annual manufacturing wages are \$889 (Massachusetts), \$860 (Connecticut), \$823 (Rhode Island), \$567 (North Carolina). The values added by manufacture, however, are \$501.72 (Connecticut), \$471.39 (Rhode Island), \$402.56 (Massachusetts)

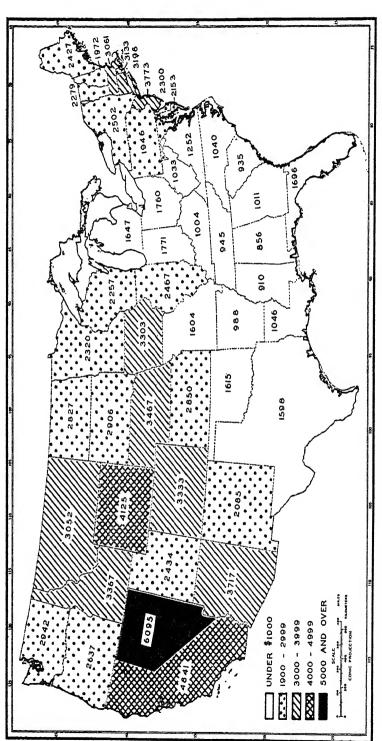


Fig. 150.—Mean value per farm of farm products, 1929. Source: Same as for Table 107. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

setts), and \$218.60 (North Carolina). On the basis of these data, it seems clear that the differences in wages and value added through manufacture might account in some measure for the differences in library development in the three northeastern states, and the one state in the Southeast.

Value of farm products.—Figures 150 and 151 may be considered to present a rough index of the relative ability of the farm populations of the various regions and states to support rural library service. The data, however, should also be considered in relation to density of farm population, topography,

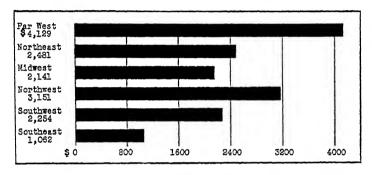


Fig. 151.—Regional summary of mean value per farm of farm products, 1929

etc. In the Southeast, for example, if those two factors alone were considered, the comparatively high concentration of rural population and the relative ease with which land can be cultivated would be expected to facilitate the support of library service; however, the advantage which should be derived from these conditions is offset by the low value of farm products. If the data presented in Figure 7 (Per cent of rural population of each state residing in local public library districts, 1934) are considered as indicative of development of rural library service, relatively little correspondence will seem to be found between rural library service and ability of the farm population to support such service. This is indicated by the data of Figures 150 and 151. Nevada, California, Wyoming, and New Jersey, however, rank high on both counts, while the Southeast ranks low. Most of the sparsely settled states of the mountain

TABLE 107\*

Mean Value per Farm of Farm Products, 1929

State	Rank	Mean Value	Standard Score
Nevada	I	\$6,095	3 · 39
California	2	4,841	2 26
Wyoming	3	4,125	1.61
New Jersey	4	3,773	I 29
Arizona	5	3,717	I 24
Nebraska	6	3,467	1 02
Idaho	7	3,367	0 93
Colorado	8	3,333	0.89
Iowa	9	3,303	0.87
Connecticut	10	3,196	0.77
Rhode Island	II	3,133	0.71
Massachusetts	12	3,061	0.65
Montana	13	3,052	0 64
Washington	13 14	2,942	0.54
South Dakota	15	2,906	0.51
Kansas	16	2,850	0 46
North Dakota	17	2,827	0 44
Oregon	18	2,637	0 27
New York	19	2,502	0.14
Illinois	20	2,362	0.14
F7 1	20		0.08
Maine	21	2,434	0.08
		2,427	-0 02
Minnesota	23	2,320	
	24	2,300	-0 04
Vermont	25	2,279	-0 06
Wisconsin	26	2,257	-0 08
Maryland	27	2,153	-0.17
New Mexico	28	2,085	-o 23
New Hampshire	29	1,972	-0 34
Pennsylvania	30	1,946	-0.36
Indiana	31	1,771	-0.52
Ohio	32	1,760	-0.53
Florida	33	1,696	-0 58
Michigan	34	1,647	-0 63
Oklahoma	35	1,615	-0 66
Missouri	36	1,604	-0.67
Texas	37	1,598	-0 67
Virginia	38	1,252	-0.99
Louisiana	39	1,046	-I I7
North Carolina	40	1,040	-1.18
West Virginia	4I	1,033	-1 18
Georgia	42	1,011	-1.20
Kentucky	43	1,∞4	-1.21
Arkansas	44	988	-I 22
Tennessee	45	945	-1.26
South Carolina	46	935	-1.27
Mississippi	47	910	-1.29
Alabama	48	856	-1.34
	τ~	","	1 34

<sup>\*</sup> Source: U.S. Census: 1930, Agriculture, IV, Table 8, pp 916-29.
Mean value (based on means of the 48 states), \$2,343; standard deviation, \$1,107; U.S. value per farm of farm products (including District of Columbia), \$2,409.

TABLE 108\* FARMS OPERATED BY TENANTS, 1930

				_
State	RANE	FARMS OPERATED BY TENANTS		STANDARD SCORE
		Farms	Per Cent	DOORE
Mississippi	I	225,617	72.2	2.12
Georgia.	2	174,390	68 2	I 9I
Louisiana	3	107,551	66 6	1 83
South Carolina	4	102,768	65 I	1
Alabama		166,420	64 7	I 75
Arkansas	5 6	152,691	63 0	I 73
Oklahoma	7	125,329	61 5	I 64
Texas	8	301,660	60 9	I 56
North Carolina	9	137,615		I 53
Iowa	10	101,615	49 2	0 92
Nebraska	11	61,020	47 3	0 82
Tennessee	12	113,520	47 I 46 2	0 81
South Dakota	13	37,094	, ,	0 76
Illinois	-3 I4	92,482	44 6	0 68
Kansas	15	70,326	43 I	0.60
Kentucky	16	88,421	42 4	0.57
North Dakota	17	27,400	35 9	0.23
Missouri	18		35 I	0.19
Colorado.	19	89,076	34 8	0.17
Delaware.	20		34 5	0.15
Minnesota	21	3,282	33 8	0.12
Indiana	22	57,638	31 1	-0.02
Florida	23	54,575	30 I	-0.08
Virginia	24	16,737	28 4	-0.16
Maryland .	2 <del>4</del> 25	47,970	28 I	-0.18
Ohio	25 26	11,441	26 5	-0.26
Idaho	20 27	57,604	26 3	-o 27
Montana	28	10,559	25 3	-o 33
Wyoming	20	11,628	<del>24</del> -5	-0.37
New Mexico.	-	3,520	22 0	-o 50
West Virginia	30	6,330	20 2	-0 59
Wisconsin .	31	15,347	18.6	-o 68
California	32	33,121	18 2	-0.70
Oregon	33	24,402	18.0	-o 7I
Washington	34	9,790	17.8	-o 72
Arizona	35	12,078	17.0	-0 76
Pennsylvania	36	2,331	16.4	-o 79
New Jersey	37	27,394	15 9	-o 82
3.4" 1"	38	3,948	15 6	-o 83
New York	39	26,195	15.5	-o 8 <sub>4</sub>
Nevada	40	21,113	13.2	-o 96
Rhode Island	4I	445	12 9	-0.97
II+ah	42	415	12 5	-0 99
Utah Vermont	43	3,321	12 2	-1 or
C	44	2,409	9.7	-1 1 <sub>4</sub>
	45	1,068	6.2	-I 32
Massachusetts	46	1,442	5.6	-I 35
New Hampshire.	47	796	5.3	-ı 37
Maine	48	1,755	4.5	-1 41

<sup>\*</sup> Source U.S. Bur. For. and Dom. Comm., Stanstical Abstract of the United States, 1935 (Wash.: Govt. Print. Off., 1935), p. 568.

Mean per cent (based on per cents of the 48 states), 31.54; standard deviation, 19.16, U.S. total, 2,664,365.

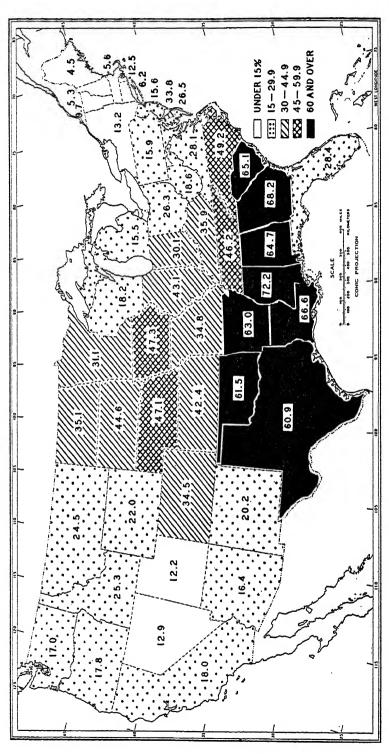


Fig. 152.—Farms operated by tenants, 1930. Source: Same as for Table 108. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

and great plains regions rank lower with respect to per cent of rural population served than with respect to value per farm of farm products. Undoubtedly the factors of topography and density of farm population have operated to hamper rural library development. In a state like Iowa, however, failure to develop rural library service must be attributed to causes other than rural wealth as indicated by the value of farm products. It should be pointed out again, moreover, that conclusions based on indices of library service for entire states are less

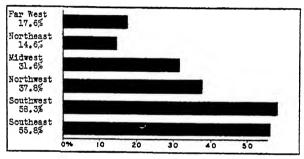


Fig. 153.—Regional summary of farms operated by tenants, 1930

reliable than is desired, and that for a more exact understanding of the variations indicated smaller units might well be studied.

Farm tenancy.—The problem of farm income is further complicated by the blight of farm tenancy. The farm tenant, or share cropper, particularly in the Southeast and Southwest, where 55.8 and 58.3 per cent, respectively, of the farms are cultivated by one or the other, is one of the most tragic figures in American life. Even before the depression the problem of providing permanent social institutions for the tenant perplexed students of rural life. His standard of living has been the lowest of that of any comparable group in the nation, while the median size of his family and his illiteracy rate have been among the highest. This situation accounts in some measure for the fact reported by Edwards that whereas farm children constitute 31 per cent of the nation's children of school age, farm income

TABLE 109\*
RETAIL SALES PER CAPITA, 1932

State	Rank	Sales per Capita	Standard Score
California	I	\$575.73	1.87
New York	2	575.12	ı 86
Nevada	3	550.06	1.62
Washington	4	495.29	I 09
Massachusetts		484 49	0 99
Illinois	5 6	483.23	0 98
Oregon	7	482.50	0 97
Colorado	8	480.65	0 95
Connecticut	9	475.80	0 91
Michigan	IO	461.67	0.77
Rhode Island	II	460.47	0.76
Ohio	12	459.89	0.75
New Jersey	13	458.12	0.73
Wyoming	14	449.53	0 65
Montana	15	446 58	0 62
Arizona	16	441.76	0 58
Nebraska	17	435.16	0 51
Kansas	18	424.56	0 41
Vermont	19	422.89	0 39
Pennsylvania	20	419.42	0 39
Wisconsin	21	419.30	0 36
Minnesota	22	419.30	•
Delaware		416.11	0 35
Missouri.	23	1 '	0.33 0.28
7	24	410.58	
** 1	25	395.05	0.13
Utah	26	393.90	0.12
New Hampshire	27	390.08	0 08
Maine Idaho	28	388.67	0 07
Indiana	29	380 81	-o oi
Indiana	30	379 59	-o o2
South Dakota	31	378.36	<b>-</b> 0 03
Maryland	32	376.22	-o os
Texas	33	356.10	-0 25
North Dakota	34	341 94	<b>−</b> 0 38
Florida	35	338 92	-0 4I
Oklahoma	36	331 33	-0 49
New Mexico	37	285.50	<b>−</b> 0 93
West Virginia	38	255 68	-I 22
Tennessee	39	248 36	—I 29
Virginia	40	246.42	-1.30
North Carolina	41	234 72	-I 42
Kentucky	42	226 43	— I 50
Louisiana	43	223 65	-I 52
Arkansas	44	221 89	-I 54
Georgia	45	212 32	<b>-1</b> 63
Mississippi	46	205 92	-ı 69
Alabama	47	198 19	-ı 77
South Carolina	48	171 98	-2 02

<sup>\*</sup>Source: U.S. Bur. For. and Dom. Comm, Commerce Yearbook: 1932, I (Wash.: Govt. Print. Off., 1932), Table 18, p. 23.

Mean per capita (based on means of the 48 states), \$381.85, standard deviation, \$103.81.

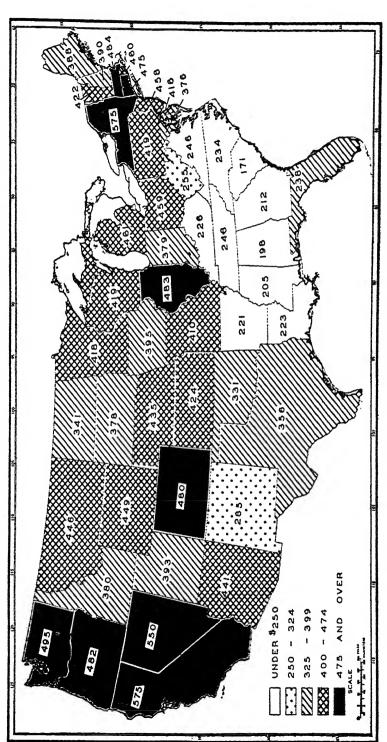


Fig. 154.—Retail sales per capita, 1932. Source: Same as for Table 109. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

is only 9 per cent of the total national income. Table 108 and Figures 152 and 153 show the distribution of farms cultivated by tenants or share croppers in 1930.

## CONSUMPTION OF GOODS AND SERVICES

Retail sales per capita.—Consumption of retail merchandise, particularly of the luxury types, has been found to furnish useful indices of economic ability. Various data indicative of wealth in this sense have been presented in other chapters of this study. Examples are: radios, automobiles, telephones, roads, books, and magazines. Figure 154 summarizes statistics

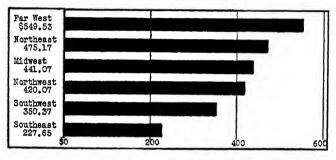


Fig. 155.—Regional summary of retail sales per capita, 1932

adjusted to the total population for total retail sales in each state in 1932. The exclusion of necessities, such as food, would probably increase the validity of these data as an index of ability to support library service. In any case, a variation of from \$171 per capita in South Carolina to \$575 in California and New York offers convincing evidence of wide variation in economic ability. Each resident of California spent three and one-third times as much for retail merchandise in the year represented as did each resident of South Carolina. Inasmuch as the \$171 spent by the resident of South Carolina provided little more than mere subsistence, and the \$575 spent by the Californian probably permitted the purchase of goods and serv-

<sup>&</sup>lt;sup>10</sup> Newton Edwards, in U.S. Congress, Senate, Committee on Education and Labor, Hearings before the Committee on Education and Labor, S. 419. 75th Cong., 1st Sess. (Washington: Government Printing Office, 1937), p. 51.

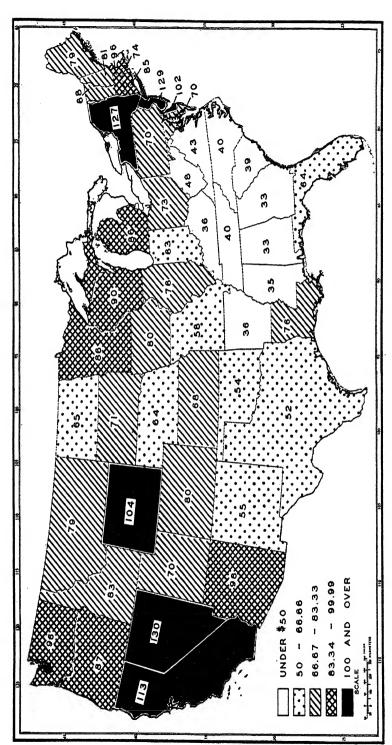


Fig. 156.—Cost of government per capita, 1932. Source: Same as for Table 110. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

ices above a subsistence level, it is not surprising that the Californian spent nearly eight times as much for library service as did the South Carolinian.

In general, retail sales bear a close relationship to per capita income. In the maps presented in this study which deal with per capita income (Fig. 137) and retail sales (Fig. 154), twenty-six states are in the same interval, while only three states vary more than one interval. As usual, the greatest degree of consistency is found in the Southeast, where ten states are in the lowest interval on both maps. There is little doubt that in these ten states library service is most difficult to provide, and in large measure this may be attributed to lack of economic ability.

Cost of government.—The expenditure which a people makes for government may be considered as expenditure for service. Figure 156 shows the per capita expenditure in 1932 by the people of each state for all governmental purposes. These data no doubt also include other factors beside that of economic ability. In general, the data probably represent a combination of ability and willingness to support social and political institutions and services. Those states which are willing and able to give relatively generous support to government would be expected to support libraries equally well; and a comparison of Figure 156 with the map of library expenditure (Fig. 18) bears out such a supposition to a considerable extent. Only six states vary as much as two intervals. Their standard scores, as shown in Table III, more accurately reveal their relative status. In the first four states, particularly in Arizona, library support fails by a wide margin to keep pace with general governmental expenditures. In Ohio and New Hampshire more money is spent, proportionally, on libraries than on government in general. The maps exhibiting cost of government and library expenditure reveal no significant variations in the relative status of the other forty-two states.

TABLE 110\*
Cost of Government per Capita, 1932

Nevada New Jersey New York. California. Wyoming Delaware. Arizona Arizona Massachusetts Washington Washington Oregon Michigan				
New Jersey         2         129,27         22,25           New York         3         127,96         2,20           California         4         113,78         1,63           Wyoming         5         104,97         1,27           Delaware         6         102,98         1,20           Arizona         7         98 50         1,02           Massachusetts         8         96 32         0,93           Washington         9         96 23         0,93           Wisconsin         10         90 74         0,71           Oregon         11         87 66         0,58           Michigan         12         86 86         0,53           Minnesota         13         86 36         0,53           Connecticut         14         85 21         0,48           Idaho.         15         83 ∞         0,40           New Hampshire         16         81,38         0,33           Colorado         17         80 85         0,31           Iowa         18         80,77         0,31           Maine         19         79,66         0,26           Montana         20	State	Rank	Cost per Capita	Standard Score
New Jersey         2         129.27         2.25           New York         3         127.96         2.20           California         4         113.78         1.63           Wyoming         5         104.97         1.27           Delaware         6         102.98         1.20           Arizona         7         98.50         1.02           Massachusetts         8         96.32         0.93           Washington         9         96.23         0.93           Washington <td< td=""><td></td><td>I</td><td>\$130.99</td><td>2.32</td></td<>		I	\$130.99	2.32
New York.         3         127 96         2.20           California.         4         113.78         1.63           Wyoming         5         104 97         1.27           Delaware.         6         102.98         1.20           Arizona         7         98 50         1.02           Massachusetts         8         96 32         0.93           Washington         9         96 23         0.93           Wisconsin         10         90 74         0.71           Oregon         11         8-66         0.58           Michigan         12         86 86         0.53           Minnesota         13         86 36         0.53           Connecticut         14         85 21         0.48           Idaho.         15         83 ∞         0.40           New Hampshire         16         81.38         0.33           Colorado         17         80 85         0.31           Iowa         18         80.77         0.31           Maine         19         79.66         0.26           Montana         20         79.47         0.25           Illinois         21		2		
Calitornia.		3		
Wyoming         5         104 97         1.27           Delaware.         6         102.98         1.20           Arizona         7         98 50         1.02           Massachusetts         8         96 32         0.93           Washington         9         96 23         0.93           Wisconsin         10         90 74         0.71           Oregon         11         87 66         0.58           Michigan         12         86 86         0.55           Minnesota         13         86 36         0.53           Connecticut         14         85 21         0.48           Idaho.         15         83         0.40           New Hampshire         16         81.38         0.33           Colorado         17         80 85         0.31           Iowa         18         80.77         0.31           Maine         19         79.66         0.26           Montana         20         79.47         0.25           Illinois         21         76.46         0.13           Louisiana         22         76.34         0.13           Rhode Island         23	California			
Arizona 7 98 50 1.02  Massachusetts 8 96 32 0.93  Washington 9 96 23 0.93  Wisconsin 10 90 74 0.71  Oregon 11 8-66 0.58  Minchigan 12 86 86 0.55  Minnesota 13 86 36 0.53  Connecticut 14 85 21 0.48  Idaho 15 83 00 0.40  New Hampshire 16 81.38 0.33  Colorado 17 80 85 0.31  Iowa 18 80.77 0.31  Maine. 19 79.66 0.26  Montana 20 79 47 0.25  Illinois 21 76 46 0.13  Louisiana 22 76.34 0.13  Rhode Island 0.10  Ohio 24 73 44 0.01  South Dakota 25 71 94 0.05  Utah 26 70 89 0.09  Maryland 27 70 83 0.09  Pennsylvania 28 70 13 0.12  Kansas 29 68 47 0.19  Vermont 30 68 12 0.09  Pennsylvania 28 70 13 0.12  Kansas 29 68 47 0.19  Vermont 30 68 12 0.20  North Dakota 31 65 45 0.31  Indiana 34 63 92 0.37  Missouri 35 58 40 0.59  New Mexico 36 55 14 0.72  Oklahoma 37 54 10 0.76  Texas 38 52.35 0.83  West Virginia 39 48 47 0.99  Virginia 40 43 86 1.17  Tennessee 41 40 33 0.13  North Carolina 43 39.47 0.13  North Carolina 43 39.47 0.13  Arkansas 44 36 65 0.14  Mississippi 46 35 47 0.15  Mississippi 46 35 47 0.15  Alabama 47 33 67 0.158	Wyoming			
Arizona 7 98 50 1.02  Massachusetts 8 96 32 0.93  Washington 9 96 23 0.93  Wisconsin 10 90 74 0.71  Oregon 11 8-66 0.58  Minchigan 12 86 86 0.55  Minnesota 13 86 36 0.53  Connecticut 14 85 21 0.48  Idaho 15 83 00 0.40  New Hampshire 16 81.38 0.33  Colorado 17 80 85 0.31  Iowa 18 80.77 0.31  Maine. 19 79.66 0.26  Montana 20 79 47 0.25  Illinois 21 76 46 0.13  Louisiana 22 76.34 0.13  Rhode Island 0.10  Ohio 24 73 44 0.01  South Dakota 25 71 94 0.05  Utah 26 70 89 0.09  Maryland 27 70 83 0.09  Pennsylvania 28 70 13 0.12  Kansas 29 68 47 0.19  Vermont 30 68 12 0.09  Pennsylvania 28 70 13 0.12  Kansas 29 68 47 0.19  Vermont 30 68 12 0.20  North Dakota 31 65 45 0.31  Indiana 34 63 92 0.37  Missouri 35 58 40 0.59  New Mexico 36 55 14 0.72  Oklahoma 37 54 10 0.76  Texas 38 52.35 0.83  West Virginia 39 48 47 0.99  Virginia 40 43 86 1.17  Tennessee 41 40 33 0.13  North Carolina 43 39.47 0.13  North Carolina 43 39.47 0.13  Arkansas 44 36 65 0.14  Mississippi 46 35 47 0.15  Mississippi 46 35 47 0.15  Alabama 47 33 67 0.158	Delaware.	6		,
Washington       9       96 23       0 93         Wisconsin       10       90 74       0 71         Oregon       11       87 66       0 58         Michigan       12       86 86       0 55         Minnesota       13       86 36       0 55         Connecticut       14       85 21       0 48         Idaho       15       83 ∞       0 40         New Hampshire       16       81 38       0 33         Colorado       17       80 85       0 31         Iowa       18       80 .77       0 31         Maine       19       79 .66       0 .26         Montana       20       79 47       0 .25         Illinois       21       76 46       0 .13         Louisiana       22       76 .34       0 13         Rhode Island       23       74 58       0 .06         Ohio       24       73 44       0 .01         South Dakota       25       71 94       -0 .05         Utah       26       70 89       -0 .09         Maryland       27       70 83       -0 .19         Vermont       30       68 12	Arizona			
Washington       9       96 23       0 93         Wisconsin       10       90 74       0 71         Oregon       11       87 66       0 58         Michigan       12       86 86       0 55         Minnesota       13       86 36       0 55         Connecticut       14       85 21       0 48         Idaho       15       83 ∞       0 40         New Hampshire       16       81 38       0 33         Colorado       17       80 85       0 31         Iowa       18       80 .77       0 31         Maine       19       79 .66       0 .26         Montana       20       79 47       0 .25         Illinois       21       76 46       0 .13         Louisiana       22       76 .34       0 13         Rhode Island       23       74 58       0 .06         Ohio       24       73 44       0 .01         South Dakota       25       71 94       -0 .05         Utah       26       70 89       -0 .09         Maryland       27       70 83       -0 .19         Vermont       30       68 12	Massachusetts .	8	96 32	
Wisconsin         10         90 74         0 71           Oregon         11         87 66         0 58           Michigan         12         86 86         0 55           Minnesota         13         86 36         0 55           Connecticut         14         85 21         0 48           Idaho         15         83 ∞         0 40           New Hampshire         16         81 .38         0 .33           Colorado         17         80 85         0 .31           Iowa         18         80 .77         0 .31           Maine         19         79 .66         0 .26           Montana         20         79 .47         0 .25           Illinois         21         76 .46         0 .13           Louisiana         22         76 .34         0 .13           Louisiana         22         76 .34         0 .13           Rhode Island         23         74 .58         0 .06           Ohio         24         73 .44         0 .01           South Dakota         25         71 .94         -0 .05           Maryland         27         70 .83         -0 .09           Pennsylvania<	Washington .			
Oregon         11         87, 66         0 58           Michigan         12         86 86         0 55           Minnesota         13         86 36         0 55           Minnesota         13         86 36         0 53           Connecticut         14         85 21         0 48           Idaho         15         83 ∞         0 40           New Hampshire         16         81 38         0 33           Colorado         17         80 85         0 31           Iowa         18         80 77         0 31           Maine         19         79 .66         0 .26           Montana         20         79 47         0 .25           Illinois         21         76 46         0 .13           Louisiana         22         76 .34         0 13           Louisiana         22         76 .34         0 13           Louisiana         22         76 .34         0 .01           South Dakota         25         71 94         -0 .05           Utah         26         70 89         -0 .09           Maryland         27         70 83         -0 .09           Mermont         3	Wisconsin			
Michigan       12       86 86       0 55         Minnesota       13       86 36       0.53         Connecticut       14       85 21       0.48         Idaho       15       83 ∞       0.40         New Hampshire       16       81.38       0.33         Colorado       17       80 85       0.31         Iowa       18       80.77       0.31         Maine       19       79.66       0.26         Montana       20       79.47       0.25         Illinois       21       76.46       0.13         Louisiana       22       76.34       0.13         Rhode Island       23       74.58       0.06         Ohio       24       73.44       0.01         South Dakota       25       71.94       -0.05         Utah       26       70.89       -0.09         Maryland       27       78.3       -0.09         Mermont       30       68.12       -0.20         Morth Dakota       31       65.45       -0.31         Nebraska       32       64.80       -0.33         Florida       33       64.58       -0.34<				
Minnesota Connecticut Idaho Is Ref 36 Solidaho Is Ref 36 Sol				_
Connecticut				
Idaho		-		
New Hampshire         16         81.38         0.33           Colorado         17         80.85         0.31           Iowa         18         80.77         0.31           Maine         19         79.66         0.26           Montana         20         79.47         0.25           Illinois         21         76.46         0.13           Louisiana         22         76.34         0.13           Louisiana         22         76.34         0.13           Rhode Island         23         74.58         0.06           Ohio         24         73.44         0.01           South Dakota         25         71.94         -0.05           Maryland         27         70.89         -0.09           Maryland         27 <td></td> <td></td> <td></td> <td></td>				
Colorado         17         80 85         0.31           Iowa         18         80.77         0.31           Maine         19         79.66         0.26           Montana         20         79.47         0.25           Illinois         21         76.46         0.13           Louisiana         22         76.34         0.13           Rhode Island         23         74.58         0.06           Ohio         24         73.44         0.01           South Dakota         25         71.94         -0.05           Utah         26         70.89         -0.09           Maryland         27         70.83         -0.09           Pennsylvania         28         70.13         -0.12           Kansas         29         68.47         -0.19           Vermont         30         68.12         -0.20           North Dakota         31         65.45         -0.31           Nebraska         32         64.80         -0.33           Ilidiana         34         63.92         -0.37           Missouri         35         58.40         -0.59           New Mexico         36	New Hampshire			
Iowa         18         80.77         0.31           Maine         19         79.66         0.26           Montana         20         79.47         0.25           Illinois         21         76.46         0.13           Louisiana         22         76.34         0.13           Rhode Island         23         74.58         0.06           Ohio         24         73.44         0.01           South Dakota         25         71.94         -0.05           Utah         26         70.89         -0.09           Maryland         27         70.83         -0.09           Maryland         27         70.83         -0.09           Maryland         29         68.47         -0.19           Vermont         30         68.12         -0.20           North Dakota         31         65.45         -0.31           Nebraska         32         64.80         -0.33           Florida         33         64.58         -0.34           Indiana         34         63.92         -0.37           Missouri         35         58.40         -0.59           New Mexico         36	Colorado			
Maine.       19       79.66       0.26         Montana.       20       79.47       0.25         Illinois.       21       76.46       0.13         Louisiana.       22       76.34       0.13         Rhode Island       23       74.58       0.06         Ohio.       24       73.44       0.01         South Dakota       25       71.94       -0.05         Utah       26       70.89       -0.09         Maryland.       27       70.83       -0.09         Maryland.       28       70.13       -0.12         Kansas.       29       68.47       -0.19         Vermont       30       68.12       -0.20         North Dakota       31       65.45       -0.31         Nebraska       32       64.80       -0.33         Florida       33       64.58       -0.34         Indiana       34       63.92       -0.37         Missouri       35       58.40       -0.59         New Mexico       36       55.14       -0.72         Oklahoma       37       54.10       -0.76         Texas       38       52.35 <t< td=""><td></td><td></td><td></td><td></td></t<>				
Montana         20         79         47         0.25           Illinois         21         76         46         0.13           Louisiana         22         76.34         0.13           Rhode Island         23         74         58         0.06           Ohio         24         73         44         0.01           South Dakota         25         71         94         -0.05           Utah         26         70         89         -0.09           Maryland         27         70         83         -0.09           Pennsylvania         28         70         13         -0         12           Kansas         29         68         47         -0.19         Vermont         30         68         12         -0.20           North Dakota         31         65         45         -0.31         Nebraska         32         64         80         -0.33         Florida         33         64         58         -0.33         Florida         33         64         58         -0.33         Florida         33         64         58         -0.33         Florida         36         55         40         -0.59 </td <td></td> <td></td> <td></td> <td></td>				
Illinois 21 76 46 0.13 Louisiana. 22 76.34 0.13 Rhode Island 23 74.58 0.06 Ohio 24 73.44 0.01 South Dakota 25 71 94 -0.05 Utah 26 70 89 -0.09 Maryland 27 70 83 -0.09 Pennsylvania 28 70 13 -0.12 Kansas 29 68 47 -0.19 Vermont 30 68 12 -0.20 North Dakota 31 65.45 -0.31 North Dakota 33 64.58 -0.33 Florida 33 64.58 -0.34 Indiana 34 63 92 -0.37 Missouri 35 58 40 -0.59 New Mexico 36 55 14 -0.72 Oklahoma 37 54 10 -0.76 New Mexico 36 55 14 -0.72 Oklahoma 39 48.47 -0.99 Virginia 40 43 86 -1.17 Tennessee 41 40 33 -1.31 North Carolina 42 40.07 -1.32 South Carolina 43 39.47 -1 35 Arkansas 44 36 65 -1.46 Mississippi 46 35 47 -1.51 Alabama 47 33 67 -1.58		- 1		
Louisiana         22         76.34         0 13           Rhode Island         23         74 58         0.06           Ohio.         24         73 44         0.01           South Dakota         25         71 94         -0.05           Utah         26         70 89         -0.09           Maryland         27         70 83         -0.09           Pennsylvania         28         70 13         -0 12           Kansas         29         68 47         -0.19           Vermont         30         68 12         -0.20           North Dakota         31         65 45         -0.31           Nebraska         32         64 80         -0.33           Florida         33         64 58         -0.34           Indiana         34         63 92         -0.37           Missouri         35         58 40         -0.59           New Mexico         36         55 14         -0.72           Oklahoma         37         54 10         -0.76           Texas         38         52.35         -0 83           West Virginia         39         48.47         -0.99           Virginia		1		-
Rhode Island         23         74         58         0.06           Ohio         24         73         44         0.01           South Dakota         25         71         94         -0.05           Utah         26         70         89         -0.09           Maryland         27         70         83         -0.09           Pennsylvania         28         70         13         -0         12           Kansas         29         68         47         -0.19           Vermont         30         68         12         -0.20           North Dakota         31         65         45         -0.31           Nebraska         32         64         80         -0.33           Florida         33         64         58         -0.34           Indiana         34         63         92         -0         37           Missouri         35         58         40         -0.59           New Mexico         36         55         14         -0.72           Oklahoma         37         54         10         -0.76           Texas         38         52.35         <				-
Ohio         24         73         44         0.01           South Dakota         25         71         94         -0.05           Utah         26         70         89         -0.09           Maryland         27         70         83         -0.09           Pennsylvania         28         70         13         -0         12           Kansas         29         68         47         -0.19         -0         19           Vermont         30         68         12         -0.20         North Dakota         31         65         45         -0.31         Nebraska         32         64         80         -0.33         Florida         33         64         58         -0.33         Florida         -0.31         Mes         -0.32         Florida         -0.33         Florida         -0.33         Florida         -0.32         Florida         -0.59         Florida         -0.59			: 1	
South Dakota         25         71         94         -0.05           Utah         26         70         89         -0.09           Maryland         27         70         83         -0.09           Pennsylvania         28         70         13         -0         12           Kansas         29         68         47         -0.19         -0.20         North Dakota         31         65         45         -0.31         Nebraska         32         64         80         -0.31         Nebraska         32         64         80         -0.33         Florida         33         64         58         -0.33         Florida         -0.31         Missisuri         36         52         40         -0.59         New Mexico         36         55         14         -0.59         New Mexico         36         55         14         -0.72         20         New Styriginia         39         48         47         -0.99         48         47         -0.99         48 <td< td=""><td></td><td>- 1</td><td></td><td></td></td<>		- 1		
Utah       26       70       89       -0.09         Maryland       27       70       83       -0.09         Pennsylvania       28       70       13       -0       12         Kansas       29       68       47       -0.19       Vermont       30       68       12       -0.20         North Dakota       31       65       45       -0.31       Nebraska       32       64       80       -0.33       Florida       33       64       58       -0.34       Indiana       34       63       92       -0       37       Missouri       35       58       40       -0.59       New Mexico       36       55       14       -0.72       0klahoma       37       54       10       -0.76       70		. ,		
Maryland.         27         70 83         -0.09           Pennsylvania.         28         70 13         -0 12           Kansas.         29         68 47         -0.19           Vermont         30         68 12         -0.20           North Dakota         31         65 45         -0.31           Nebraska         32         64 80         -0.33           Florida         33         64 58         -0.34           Indiana         34         63 92         -0.37           Missouri         35         58 40         -0.59           New Mexico         36         55 14         -0.72           Oklahoma         37         54 10         -0.76           Texas         38         52.35         -0.83           West Virginia         39         48.47         -0.99           Virginia         40         43 86         -1.17           Tennessee         41         40 33         -1.31           North Carolina         42         40.07         -1.32           South Carolina         43         39.47         -1         35           Arkansas         44         36 65         -1.46         -1.4				_
Pennsylvania         28         70 13         -0 12           Kansas         29         68 47         -0.19           Vermont         30         68 12         -0.20           North Dakota         31         65 45         -0.31           Nebraska         32         64 80         -0.33           Florida         33         64 58         -0.34           Indiana         34         63 92         -0 37           Missouri         35         58 40         -0.59           New Mexico         36         55 14         -0.72           Oklahoma         37         54 10         -0.76           Texas         38         52.35         -0 83           West Virginia         39         48.47         -0.99           Virginia         40         43 86         -1.17           Tennessee         41         40 33         -1.31           North Carolina         42         40.07         -1.32           South Carolina         43         39.47         -1 35           Arkansas         44         36 65         -1.46           Kentucky         45         36 09         -1.48           Missi		3		-0.09
Kansas       29       68       47       -0.19         Vermont       30       68       12       -0.20         North Dakota       31       65       45       -0.31         Nebraska       32       64       80       -0.33         Florida       33       64       58       -0.34         Indiana       34       63       92       -0       37         Missouri       35       58       40       -0.59         New Mexico       36       55       14       -0.72         Oklahoma       37       54       10       -0.76         Texas       38       52.35       -0       83         West Virginia       39       48.47       -0.99         Virginia       40       43       86       -1.17         Tennessee       41       40       33       -1.31         North Carolina       42       40.07       -1.32         South Carolina       43       39.47       -1       35         Arkansas       44       36       65       -1       46         Mississippi       46       35       47       -1.58				-
Vermont         30         68         12         -0.20           North Dakota         31         65         45         -0.31           Nebraska         32         64         80         -0.33           Florida         33         64         58         -0.34           Indiana         34         63         92         -0         37           Missouri         35         58         40         -0.59           New Mexico         36         55         14         -0.72           Oklahoma         37         54         10         -0.76           Texas         38         52.35         -0         83           West Virginia         39         48.47         -0.99         Virginia         40         43         86         -1.17           Tennessee         41         40         33         -1.31         North Carolina         42         40.07         -1.32           South Carolina         43         39.47         -1         35           Arkansas         44         36         65         -1.46           Kentucky         45         36         09         -1.48           Mississippi<				-o 12
North Dakota         31         65         45         -0.31           Nebraska         32         64         80         -0.33           Florida         33         64         58         -0.34           Indiana         34         63         92         -0         37           Missouri         35         58         40         -0.59           Missouri         36         55         14         -0.72           Oklahoma         37         54         10         -0.76           Texas         38         52.35         -0         83           West Virginia         39         48         47         -0.99           Virginia         40         43         86         -1.17           Tennessee         41         40         33         -1.31           North Carolina         42         40.07         -1.32           South Carolina         43         39.47         -1         35           Arkansas         44         36         65         -1.46           Kentucky         45         36         09         -1.48           Mississippi         46         35         47         <				-0.19
Nebraska         32         64         80         -0.33           Florida         33         64         58         -0.34           Indiana         34         63         92         -0         37           Missouri         35         58         40         -0.59           Mexico         36         55         14         -0.72           Oklahoma         37         54         10         -0.76           Texas         38         52.35         -0         83           West Virginia         39         48.47         -0.99           Virginia         40         43         86         -1.17           Tennessee         41         40         33         -1.31           North Carolina         42         40.07         -1.32           South Carolina         43         39.47         -1         35           Arkansas         44         36         65         -1.46           Kentucky         45         36         09         -1.48           Mississippi         46         35         47         -1.51           Alabama         47         33         67         -1.58		- 1		-0.20
Florida 33 64 58 -0.34 Indiana 34 63 92 -0.37 Missouri 35 58 40 -0.59 New Mexico 36 55 14 -0.72 Oklahoma 37 54 10 -0.76 Texas 38 52.35 -0.83 West Virginia 39 48.47 -0.99 Virginia 40 43 86 -1.17 Tennessee. 41 40.33 -1.31 North Carolina 42 40.07 -1.32 South Carolina 43 39.47 -1 35 Arkansas 44 36 65 -1.46 Kentucky 45 36 09 -1.48 Mississippi 46 35 47 -1.51 Alabama 47 33 67 -1.58		31		-0.31
Indiana       34       63       92       -0       37         Missouri       35       58       40       -0       59         New Mexico       36       55       14       -0       72         Oklahoma       37       54       10       -0       76         Texas       38       52       35       -0       83         West Virginia       39       48       47       -0       99         Virginia       40       43       86       -1       17         Tennessee       41       40       33       -1       31         North Carolina       42       40       07       -1       32         South Carolina       43       39       47       -1       35         Arkansas       44       36       65       -1       46         Mississippi       46       35       47       -1       51         Alabama       47       33       67       -1       58		32		<b>-</b> 0.33
Missouri     35     58     40     -0.59       New Mexico     36     55     14     -0.72       Oklahoma     37     54     10     -0.76       Texas     38     52.35     -0     83       West Virginia     39     48.47     -0.99       Virginia     40     43     86     -1.17       Tennessee     41     40     33     -1.31       North Carolina     42     40.07     -1.32       South Carolina     43     39.47     -1     35       Arkansas     44     36     65     -1.46       Kentucky     45     36     09     -1.48       Mississippi     46     35     47     -1.51       Alabama     47     33     67     -1.58		33		-0.34
New Mexico         36         55         14         -0.72           Oklahoma         37         54         10         -0.76           Texas         38         52.35         -0         83           West Virginia         39         48.47         -0.99           Virginia         40         43         86         -1.17           Tennessee         41         40         33         -1.31           North Carolina         42         40.07         -1.32           South Carolina         43         39.47         -1         35           Arkansas         44         36         65         -1.46           Kentucky         45         36         09         -1.48           Mississippi         46         35         47         -1.51           Alabama         47         33         67         -1.58	Indiana	34	63 92	<b>−</b> ○ 37
Oklahoma.       37       54       10       -0.76         Texas       38       52.35       -0.83         West Virginia       39       48.47       -0.99         Virginia.       40       43.86       -1.17         Tennessee.       41       40.33       -1.31         North Carolina.       42       40.07       -1.32         South Carolina       43       39.47       -1.35         Arkansas       44       36.65       -1.46         Kentucky.       45       36.09       -1.48         Mississippi       46       35.47       -1.51         Alabama       47       33.67       -1.58			58 40	-o. 59
Texas     38     52.35     -0 83       West Virginia     39     48.47     -0.99       Virginia.     40     43 86     -1.17       Tennessee.     41     40 33     -1.31       North Carolina.     42     40.07     -1.32       South Carolina     43     39.47     -1 35       Arkansas     44     36 65     -1.46       Kentucky.     45     36 09     -1.48       Mississippi     46     35 47     -1.51       Alabama     47     33 67     -1.58		36	55 14	-0.72
West Virginia       39       48.47       -0.99         Virginia       40       43.86       -1.17         Tennessee       41       40.33       -1.31         North Carolina       42       40.07       -1.32         South Carolina       43       39.47       -1.35         Arkansas       44       36.65       -1.46         Kentucky       45       36.09       -1.48         Mississippi       46       35.47       -1.51         Alabama       47       33.67       -1.58		37	54 10	<b>-</b> 0.76
Virginia.     40     43     86     -1.17       Tennessee.     41     40     33     -1.31       North Carolina.     42     40.07     -1.32       South Carolina     43     39.47     -1.35       Arkansas     44     36     65     -1.46       Kentucky.     45     36     09     -1.48       Mississippi     46     35     47     -1.51       Alabama     47     33     67     -1.58	Texas	38	52.35	<b>−</b> 0 83
Tennessee       41       40 33       -1.31         North Carolina       42       40.07       -1.32         South Carolina       43       39.47       -1 35         Arkansas       44       36 65       -1.46         Kentucky       45       36 09       -1.48         Mississippi       46       35 47       -1.51         Alabama       47       33 67       -1.58	West Virginia	39	48.47	-0.99
North Carolina     42     40.07     -1.32       South Carolina     43     39.47     -1 35       Arkansas     44     36 65     -1.46       Kentucky     45     36 09     -1.48       Mississippi     46     35 47     -1.51       Alabama     47     33 67     -1.58	Virginia	40	43 86	
North Carolina     42     40.07     -1.32       South Carolina     43     39.47     -1 35       Arkansas     44     36 65     -1.46       Kentucky     45     36 09     -1.48       Mississippi     46     35 47     -1.51       Alabama     47     33 67     -1.58	Tennessee	4I	40 33	-1.31
South Carolina     43     39.47     -1 35       Arkansas     44     36 65     -1.46       Kentucky     45     36 09     -1.48       Mississippi     46     35 47     -1.51       Alabama     47     33 67     -1.58	North Carolina	- 1		
Arkansas     44     36 65     -1.46       Kentucky     45     36 09     -1.48       Mississippi     46     35 47     -1.51       Alabama     47     33 67     -1.58	South Carolina			
Kentucky	Arkansas			
Mississippi 46 35 47 -1.51 Alabama 47 33 67 -1.58		(		•
Alabama 47   33 67   -1.58	Mississippi		•	
Georgia 48 33.62 -1 58	Alabama	- 1		
	_			-ı 58
	5			

<sup>\*</sup>Source U.S. Bur Census, Financial Statistics of State and Local Governments, 1932 (Wash): Govt. Print. Off., 1935), pp. 28-39.
Mean per capita (based on means of the 48 states), \$73.14; standard deviation, \$24.95.

Postal receipts per capita.—Postal receipts per capita may be thought of as falling within the category of expenditures for services and constitute another index by which economic ability is frequently measured. The data given on this subject in Table 112 and Figures 157 and 158 merely add to the information already presented with respect to the relative abilities of the six regions. If, however, they were combined with data concerning the number of pieces of mail received per capita in the various

TABLE 111\*
Six States Compared with Respect to Library
Expenditure and to Cost of Government

	Standard Score		
State	Library Expenditure	Cost of Government	
Nevada Arizona Louisiana Delaware Ohio New Hampshire	0.35 -0 99 -1 04 0.52 1.58 1.24	2 32 1 02 0 13 1 20 0 01 0 33	

<sup>\*</sup> Source Tables 19 and 110.

regions, the variance between different areas in amounts of reading materials received in this manner would be sharply emphasized.

Expenditures for services of physicians, dentists, and nurses.—What a community pays for the professional services of doctors, dentists, and nurses, and its expenditure for hospital service and for protection from preventable diseases are not usually thought of as in the category of retail sales. Nevertheless, the attempt to cope with its health problems may be considered as a measure of a community's ability and willingness to provide for this fundamental of modern life. Expenditures for these services are made as for the necessities of life. The question may then well be asked: How much do states vary in the amount spent for health service?

TABLE 112\*
Postal Receipts per Capita, 1932

Ç	_	Receipts		
STATE	RANK	Total (in Thousands)	Per Capita	Standard Score
New York	I	\$104,267	\$8.28	2.77
Illinois	2	59,852	7.84	2.49
Missouri	3	22,781	6 28	1.50
Massachusetts	4	25,543	6 01	I.33
California	5	33,050	5 82	1.21
Connecticut .	6	9,313	5 80	1.20
Nevada	7	517	5 68	I 12
Minnesota	8	14,481	5 65	I 12
Colorado	9	5,655	5 46	0 98
Ohio	10			
Oregon	11	33,963	5 11	0.76
Washington	12	4,561	4 78	0.55
Delaware	13	7,262	4 65	0.47
Nebraska	•	1,092	4.58	0 42
New Hampshire	14	6,206	4.50	0.37
N.	15 16	2,066	4.44	0.34
		7,159	4 39	0 30
	17	3,490	4 38	0 30
Iowa	17	10,828	4 38	0.30
Vermont	19	1,571	4 37	0 29
New Jersey	20	17,612	4.36	0 28
Wisconsin	21	12,743	4 34	0 27
Pennsylvania	22	41,735	4.33	0 27
Rhode Island	23	2,912	4 24	0 21
Indiana	24	12,775	3 94	0.02
Michigan	<del>24</del>	19,061	3 94	0 02
Wyoming	26	866	3 84	-0.04
Montana	27	2,036	3 79	−o o8
Utah	28	1,836	3 62	-o 18
Kansas	29	6,548	3.48	-o 27
North Dakota	30	2,330	3 42	-0 31
Florida	31	4,953	3 37	-o <sub>34</sub>
South Dakota	32	2,233	3 22	-0.44
Arizona	33	1,276	2.93	-0 62
Texas	34	16,954	2.91	-0 63
Virginia	34	7,058	2 91	-o 63
Idaho	36	1,284	2 89	-0 65
Tennessee	37	6,732	2 57	-0.85
Georgia	38	7,374	2 54	-0.87
New Mexico	39	983	2 32	-1 01
Oklahoma	40	5,5 <del>24</del>	2.31	—I 0I
West Virginia	4I	3,864	2.23	-1.06
Louisiana	42	4,611	2.19	-1.00
Kentucky	43	5,689	2 18	-1.09
North Carolina	44	6,005	1.89	-1.28
Arkansas	45	2,905	1.57	-1.48
Alabama	45 46	3,944	1.37 1.49	-1.40
Mississippi	-	3,9 <del>11</del> 2,460	1.49 1.22	-1.53 -1.70
South Carolina.	47 48	1,736	1.00	-1.70 -1.84
Journ Caronna	40	-,/30	1.00	1.04

<sup>\*</sup>Source: U.S. P.O. Dept., Annual Report of the Postmaster General for the Fiscal Year Ended June 30, 1932 (Wash.: Govt. Print. Off., 1932), pp. 152-53.

Mean per capita (based on means of the 48 states), \$3 91; standard deviation, \$1.58; U.S. total (in thousands), \$564,671; U.S. postal receipts per capita (including District of Columbia), \$4.60.

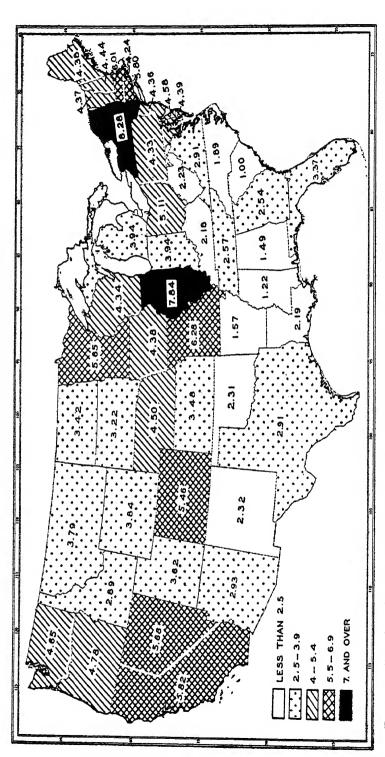


Fig. 157.-Postal receipts per capita, 1932. Source: Same as for Table 112. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)
The figures in this maptare expressed in terms of dollars.

Four measures have been studied in attempting to answer this question. They relate (1) to the number of physicians, dentists, and trained nurses per 10,000 population in the various states; (2) to the number of hospital beds per 10,000 population; (3) to the per cent of the counties having hospitals; and (4) to the death rate from four communicable diseases, measles, whooping cough, diphtheria, and scarlet fever. It will be sufficient, however, for the purposes of this study to review only one of these measures, since it is highly representative of the others.

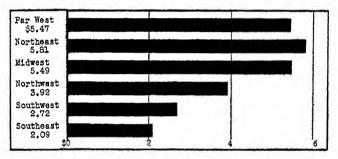


Fig. 158.—Regional summary of postal receipts per capita, 1932

The measure chosen is that which concerns the number of physicians, dentists, and trained nurses per 10,000 population in the various states. It is presented in terms of standard scores in Table 113 and Figures 159 and 160.

A marked similarity is revealed between the status of the regions in this respect and their status in library development. The Far West and Northeast rank highest, the Southwest and Southeast lowest, and the Northwest and Midwest fall in between. Table 114 shows that Illinois, Minnesota, New York, and Maryland rank relatively higher in number of physicians, etc., whereas Wyoming, Vermont, and New Hampshire rank relatively higher in library facilities.

Recreational facilities and expenditures.—The widespread provision of recreation is a further type of service that may be used as an index of economic ability. Governmentally organized recreation has come into existence in this country, particularly in

TABLE 113\*

Physicians, Dentists, and Nurses per 10,000

Population, 1930 and 1931

10102411011, 1930 1110 1931					
•		PHYSICIANS, DENT	Standard		
State	Rank	Total	Per 10,000 Population	Score	
California	1	38,871	68 47	2 41	
Massachusetts	2	28,396	66 82	2.28	
Connecticut	3	9,581	59.62	т 68	
New York	4	73,551	58 43	I 59	
Colorado	5	5,586	53 93	I 22	
New Hampshire	6	2,474	53 17	1 15	
Minnesota	7	13,607	53 07	I 14	
Maryland	ĺ ź	8,513	52 18	1.07	
Oregon	9	4,948	51 88	1.05	
Washington	10	7,871	50 35	0 92	
Illinois	11	37,104	48.62	0 78	
Vermont	12	1,726	48 ∞	0.73	
Rhode Island	13	3,264	47.48	0.68	
Maine	14	3,692	46 30	0 59	
Pennsylvania	15	43,315	44 97	0 48	
Nevada	16	396	43 49	0.35	
New Jersey	17	17,532	43 38	0.35	
Iowa	18	10,484	42 43	0.27	
Nebraska	19	5,838	4º 37	0 26	
Ohio	20	28,069	42 23	0.25	
Missouri	21	15,041	41 44	0.19	
Michigan	22	19,741	40 77	0.13	
Montana	23	2,151	40 01	0 07	
Arizona	24	1,718	39 44	0 02	
Wisconsin	25	11,563	39 34	0 01	
Delaware	26	890	37.34	-0.15	
Florida	27	5,284	35.99	-0.26	
Kansas	28	6,741	35.84	<b>-</b> 0.28	
Indiana	29	11,578	35 75	-0.28	
Utah	30	1,797	35 38	-0.31	
Wyoming	31	781	34.62	-0.38	
North Dakota	32	2,265	33.27	-0 49	
Virginia	33	8,013	33.09	-0.50	
South Dakota	34	2,222	32 07	-0.59	
Idaho	35	1,368	30.74	-0.70	
West Virginia	36	4,957	28.67	-0 8 <sub>7</sub>	
Texas	37	16,6∞	28 50	-o 88	
Tennessee	38	7,353	28.10	-0 91	
Georgia	39 40	5,768	27.45	-o 97	
0111	•	7,707	26.50	-1.05	
Kentucky	4I 42	6,006 6,527	25.07	-1.16 -1.17	
North Carolina.	42 43	7,609	24.96	-1.17 -1.25	
New Mexico	43 44	7,009 991	24.00 23.4I	-1.25 -1.20	
South Carolina	45	3,755	23.41	-1.30	
Arkansas	46	3,755	21.00	-I 45	
Alabama	47	5,563	21.34	-1.47 -1.50	
Mississippi	48	3,619	18.01	-1.50 -1.75	
**		3,9		*•/3	

<sup>\*</sup> Source: The World Almanac for 1934 (N.Y.: N.Y. World-Telegram, 1934), p 866; U.S. Census, 1930, Population, IV, 112 ff.
Mean per 10,000 population (based on means of the 48 states), 39.19; standard deviation, 12.13.

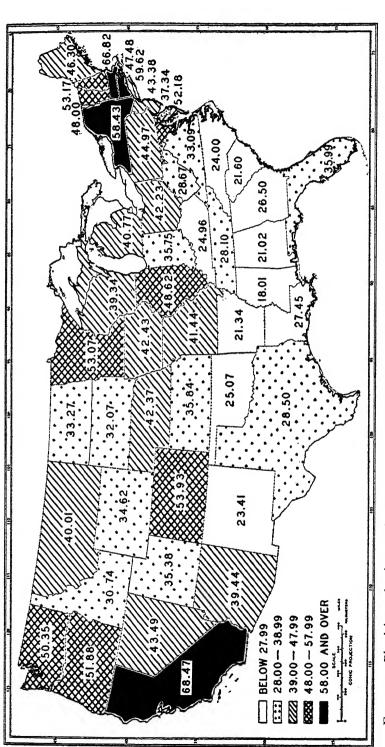


Fig. 159.—Physicians, dentists, and nurses per 10,000 population, 1930 and 1931. Source: Same as for Table 113. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

municipalities, since 1900. In 1904, according to figures in the Financial Statistics of Cities over 30,000, the total spent for operating expenses was \$8,478,697. In 1931, the expenditures re-

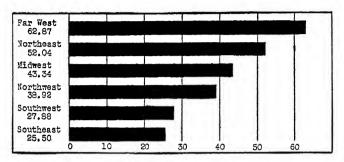


Fig. 160.—Regional summary of physicians, dentists, and nurses per 10,000 population, 1930 and 1931.

TABLE 114\*

Seven States Compared with Respect to Physicians, Dentists, and Nurses, and to Library Service

	Standard Score		
State	Health Service Library Ser		
Illinois	0.78 1.14 1.59 1.07 -0.38 0.73 1.15	0.45 0 15 0 80 -0.11 1.11 1.52 2.16	

<sup>\*</sup> Source Tables 51 and 113.

ported for similar purposes in cities of over 30,000 was \$78,892,-302. The per capita expenditure increased in the same period from \$0.39 to \$1.63<sup>xx</sup> while the per cent of the total municipal income devoted to operating expenses for recreation only in-

<sup>&</sup>lt;sup>12</sup> U.S. Bureau of the Census, *Financial Statistics of Cities Having a Population of over 30,000: 1904–1931* (Washington: Government Printing Office, 1906–33). The titles of this series vary.

creased from 3.3 in 1910 to 3.6 in 1931. In this respect, it exhibited a marked similarity to percentage of municipal income devoted to the maintenance of libraries during the same period, except that it was nearly three times as high. It should be noted, also, in considering expenditure for organized public recreation, that it is for recreation in municipalities having a population of 30,000, or more, inasmuch as recreation is usually a feature of urban rather than of rural life.

While municipalities, counties, and other state and federal governmental divisions make provision for recreation for the public, the amount thus expended is negligible when contrasted with that which the public spends for recreation of all kinds. The following data are proffered, not in order to point a moral that the public has money to pay for those things for which it wishes to pay, but to show the vastness of these expenditures. The total spent for recreation in 1930, as given by Steiner in Americans at Play, was \$10,165,875,000. This was distributed as follows: (1) government expenditures, \$193,410,000, or 1.9 per cent; (2) travel and mobility, \$6,492,151,000, or 63.9 per cent; (3) commercial amusements, \$2,214,725,000, or 21.8 per cent; (4) leisure-time associations, \$125,000,000, or 3.8 per cent; and (5) games, sports, outdoor life, etc., \$883,071,000, or 8.7 per cent.<sup>12</sup>

This total for 1930, however, is not as important to the purposes of the present study as are the total receipts in 1933 for commercial amusements, including moving pictures, theaters, athletic contests, etc. These amounted to \$520,218,000, and although this sum was approximately only one-twentieth of the sum spent in 1930 for amusements of all kinds, it represents the amount Americans paid as admissions for commercial entertainment during what, in many respects, was the deepest depression year. When broken down on a per capita basis by states, as in Table 115, a range is shown of from \$8.67 in New York to \$0.73

<sup>&</sup>lt;sup>12</sup> J. F. Steiner, Americans at Play (New York, McGraw-Hill Book Company 1933), p. 183. Per cents are not included in the original statement. The data for the most part are for 1930, but in some instances the latest figures available were for the years 1928 and 1929.

**TABLE 115\*** PER CAPITA RECEIPTS OF PLACES OF AMUSEMENT, 1933

	Rank	Receipts		
State		Total (in Thousands)	Per Capita	Standard Score
New York	I	\$109,148	\$8 67	2 77
California	2	44,137	7 77	2 29
Illinois	3	52,846	6 93	1 84
Nevada	4	611	6.71	1 72
Massachusetts		26,660	6 27	1 49
Maryland	5 6	10,150	6.22	I 46
New Hampshire	7	2,815	6 05	1.37
New Jersey	8	22,699	5.62	1.14
Connecticut	9	8,914	5 55	1.10
Rhode Island	10	3,780	5.50	1 08
Washington	11	8,067	5.16	0.89
Wyoming	12	1,015	4.50	_
Delaware	13	1,017	4.30	0 54 0 42
01:	•	27,681	4.16	1 .
	14			0.36
Oregon	15	3,667	3.84	0 19
Pennsylvania	16	35,574	3.69	0.11
Michigan	17	17,613	3.64	0.08
Missouri	18	13,158	3.63	0.07
Minnesota	19	9,111	3 55	0 03
Florida	20	4,982	3.49	0 00
Colorado .	21	3,475	3.35	-0.07
Montana	22	1,794	3.34	-0 08
Arizona	23	I,357	3.12	-0 20
Utah	24	1,530	3 01	-0.26
Iowa	25	7,292	2 95	-o 29
Kansas	26	5,450	2 90	-0 32
Nebraska	27	3,908	2.84	-o 35
Wisconsin	28	8,296	2.82	-o 36
Indiana	29	8,670	2.68	-o 43
Texas	30	15,281	2.62	-0.47
Idaho	31	1,146	2.58	-0 49
South Dakota	32	1,752	2 53	-0 51
Louisiana	33	5,288	2 52	-0 52
Oklahoma	34	5,604	2.34	-0.62
Virginia	35	5,401	2 23	-0 67
West Virginia	36	3,764	2.18	-0 70
North Dakota	37	1,460	2.14	-0.72
Kentucky	38	5,429	2.08	-0.76
Maine	39	1,621	2.03	-0.78
Vermont	40	689	1.92	-0 8 <sub>4</sub>
Georgia	4I	4,940	I 70	-0.96
New Mexico	42	686	I 62	-1.00
North Carolina.	43	4,783	1.51	-ı o6
Tennessee	44	3,737	1.43	-1.10
South Carolina.	45	2,055	1.18	-1.24
Arkansas	46	1,761	0.95	-1.24 -1.36
Alabama	47	2,395	0.91	-1.30 -1.38
Mississippi	48	1,465	0.73	-1.38 -1.48
	40	1,405	0.73	-1 40

<sup>\*</sup>Source: U.S. Bur. Census, Census of American Business: 1933, Services, Amusements and Hotels, 1 (Wash.: Govt. Print. Off, 1933), p. xvii, Table Ic, p. 4.

Mean per capita (based on means of the 48 states), \$3.49; standard deviation, \$1 867; U.S. total (in thousands), \$520,218; U.S. receipts of places of amusement per capita (including District of Columbia), \$4.24.

\$4.24.

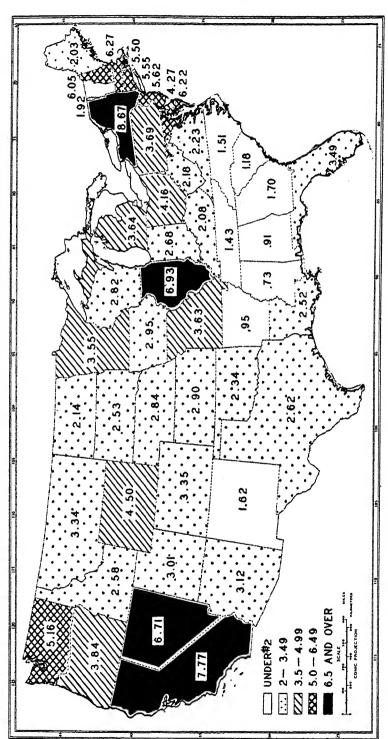


Fig. 161.—Per capita receipts of places of amusement, 1933. Source: Same as for Table 115. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

in Mississippi. Careful comparison of this table (115) with the public library index (Table 51) discloses great similarity. The amount spent for amusement, when correlated with the index of library development, results in a coefficient of +.73. This evidence strongly sustains the conviction that library service, like commercial amusement, is dependent upon an economic ability which is impossible of attainment in certain states where per capita income can meet only the barest requirements of physical subsistence.

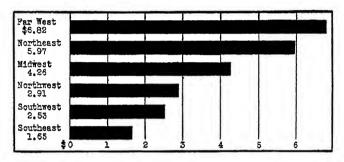


Fig. 162.—Regional summary of per capita receipts of places of amusement, 1933.

Figure 161 corroborates this evidence by showing that, almost without exception, the same states spend relatively large amounts for amusements and for the support of libraries (Fig. 18).

## TAX-PAYING ABILITY

One of the most important indices of the ability of the various states to support public service is that based upon the tax income which would result from the application of an intelligent and uniform tax system to each state. A committee of the American Tax Association formulated such a model tax system in 1933. Estimates of the income which would result from its uniform application have since been worked out by students of education who have attempted to measure objectively and convincingly the relative ability of the states to support adequate educational programs. Mr. and Mrs. Norton, in their study

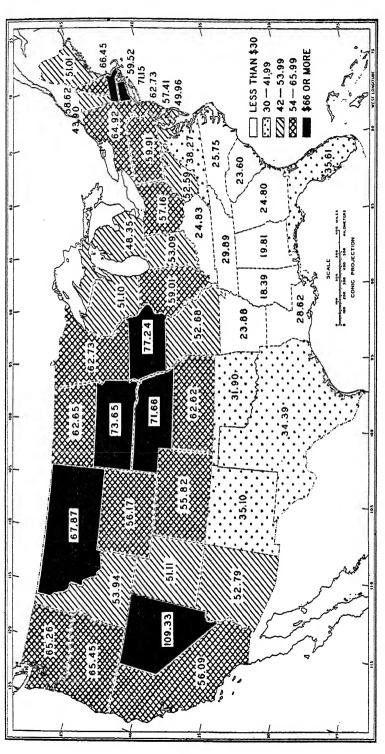


Fig. 163.—Per capita tax-paying ability of the states, 1932. Source: Same as for Table 116. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

published under the title Wealth, Children and Education, conclude that the

wide differences in the level of financial support provided education in different states are almost wholly the outcome of wide differences in ability to finance education. The disparities in financial support are not primarily due to the failure of some states to make proper effort to finance schools. In fact, states now providing the least adequate financial support for education, as a group, are making greater effort than those providing the most adequate financial support.<sup>13</sup>

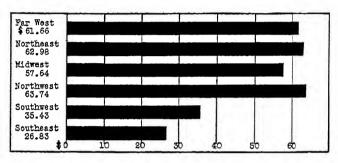


Fig. 164.—Regional summary of per capita tax-paying ability of the states, 1932

The parallel between library development and school adequacy and support is obvious. Both rest largely upon economic ability. Both suffer most in those areas where economic resources and family income provide very little margin above a subsistence standard of living. Table 116 and Figures 163 and 164 give data on the tax-paying ability of the various states, as calculated by Mr. Chism on the basis of the model tax plan prepared by the aforementioned committee. A comparison of Figure 163 with Figure 18 (Per capita expenditure for public libraries, 1934) shows that twenty-one states are in the same interval on both; that five states rank one interval higher in library expenditure than in tax-paying ability; and that twenty-two states rank higher in tax-paying ability than in expenditures for library service.

No state ranks more than one interval higher in library expenditure than in tax-paying ability; but five states, Nevada, Pennsylvania, Kansas, Arizona, and West Virginia, stand two

<sup>13</sup> Norton and Norton, op. cit., p. 70.

<sup>14</sup> Chism, op. cit., p. 124.

**TABLE 116\*** PER CAPITA TAX-PAYING ABILITY OF THE STATES, 1932

State .	Rank	Tax-Paying Ability		
		Total (in Thousands)	Per Capita	STANDARD SCORE
Nevada	I	\$ 10,168	109.33	3 24
Iowa	2	191,479	77.24	1.45
South Dakota	3	51,555	73.65	1.25
Nebraska	4	99,469	71.66	1.14
Connecticut	5 6	116,263	71.15	1 11
Montana	6	36,513	67.87	0 93
Massachusetts	7	285,542	66.45	0 85
Oregon	8	63,527	65.45	0.80
Washington	9	103,638	65.26	0.78
New York	10	834,313	64.92	0 76
Minnesota	II	162,149	62.73	0 64
New Jersey	II	260,189	62.73	0 64
North Dakota	13	42,916	62 65	0.64
Kansas	14	118,601	62.62	0.64
Pennsylvania	15	583,632	59.91	0.48
Rhode Island	16	41,546	59.52	0.46
Illinois	17	458,407	59.01	0.43
New Hampshire	18	27,433	58 62	0.41
Delaware	19	13,779	57 41	0.35
Ohio	20	385,978	57 16	0.33
Wyoming	21	12,864	56.17	0 28
California	22	333,550	56 09	0.27
Colorado	23	58,446	55.82	0.26
Idaho	24	24,113	53 94	0.15
Indiana	25	173,883	53 09	0.10
Arizona	26	23,650	52.79	0.09
Missouri	27	192,588	52 68	0.08
West Virginia	28	92,614	52 59	0.08
Utah	29	26,323	51 11	-0.01
Wisconsin	30	152,084	51 10	-0.01
Maine	31	40,861	51 01	-o oı
Maryland	32	82,581	49.96	-0 07
Michigan	33	240,932	48 35	-o 16
Vermont	34	15,804	43 90	-0 41
Virginia	35	93,195	38 27	-o 72
Florida	36	54,410	35 61	<b>−</b> 0 87
New Mexico	37	15,127	35 10	-0 90
Texas	38	205,073	34 39	-o <sub>94</sub>
Oklahoma	39	77,848	31 90	80.1
Tennessee	40	79,220	29 89	-I 19
Louisiana	4I	61,188	28 62	—ı 26
North Carolina	42	83,542	25.75	-I 42
Kentucky	43	65,501	24 83	-I 47
Georgia	44	72,175	24 80	-ı <sub>4</sub> 8
Arkansas	45	44,587	23 88	-ı 53
South Carolina	46	41,182	23 60	-1.5 <del>4</del>
Alabama	47	53,141	19.81	-1.75
Mississippi	48	37,444	18 39	-ı 83

<sup>\*</sup>Source: L. L. Chism, The Economic Ability of the States to Finance Public Schools, Teachers College Contributions to Education, No 669 (N.Y. T.C.C U., 1936), p. 124, col. 98, U.S. Cong., Senate, Com. on Educ. and Labor, Hearings before the Committee on Education and Labor, S. 419, 75th Cong., 1st Sess. (Wash: Govt. Print. Off., 1937), p. 23.

Mean per capita (based on means of the 48 states), \$50 80; standard deviation, \$17.91; U.S. total (in thousands), \$6,341,023; U.S. per capita tax-paying ability (including District of Columbia), \$51.23.

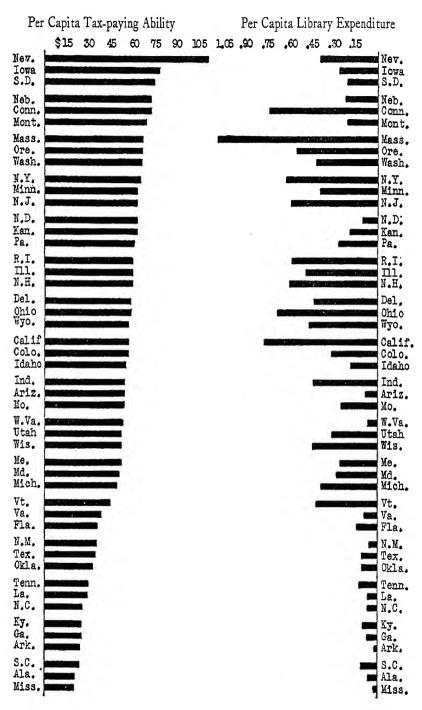


Fig. 165.—Comparison of per capita tax-paying ability and library expenditure

intervals higher with respect to tax-paying ability than to library expenditure; and five states rank three intervals higher in tax-paying ability. The latter five states are Iowa, South Dakota, Nebraska, Montana, and North Dakota. Of the ten states ranking significantly higher in tax-paying ability than in expenditure for library service, all but Pennsylvania and West Virginia are west of the Mississippi. All are predominantly rural, with the exception of Pennsylvania. Apparently the difficulties involved in providing service to a relatively sparse population have prevented the development of library facilities, despite relatively high tax-paying ability. These difficulties have

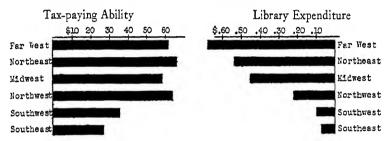


Fig. 166.—Regional summary of comparison of tax-paying ability and library expenditure.

obviously been increased in some of the states by drought and dust storms since 1932, the year for which the data in Table 116 were given.

In the light of this evidence it seems safe to conclude, tentatively, that tax-paying ability, unless considered in the light of other factors, density of population, topography, etc., may not be accurately representative of ability to support library service. That is, many sparsely populated or mountainous states with relatively high tax-paying ability undoubtedly find the support of library service much more difficult than do states of corresponding wealth, but of more concentrated population. Apparent exceptions to this generalization are Idaho and Wyoming. The former ranks higher in library support than in tax-paying ability, while the latter ranks in the same interval on both maps. Regional variations in tax-paying ability, as shown

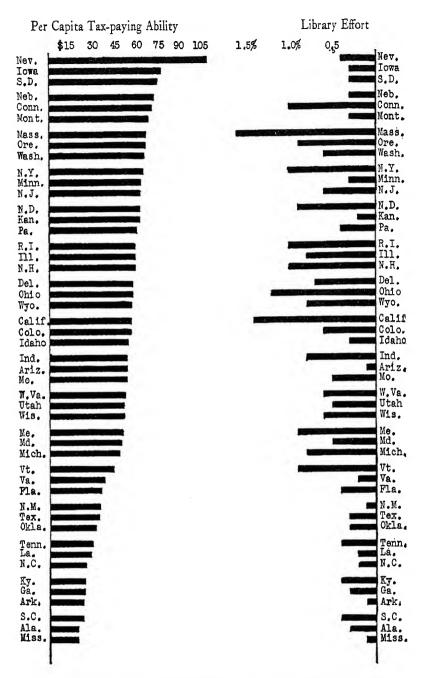


Fig. 167.\*—Comparison of per capita tax-paying ability and library effort

<sup>\*</sup>Source: Table 19 (per capita expenditure for public libraries, 1934) and Table 116 (per capita tax-paying ability of the states, 1932). The index of library effort is derived by dividing per capita expenditure by per capita tax-paying ability.

in Figure 164, differ in pattern from most of the regional summary charts in that the first four regions, Far West, Northeast, Midwest, and Northwest, vary but little in ability to pay taxes. The two southern regions conform to the usual pattern.

Figure 165 indicates in graphic form the relative status of each state in tax-paying ability and in library expenditure. It will be seen that there is some tendency for states ranking relatively high in tax-paying ability to rank high, also, in library expenditure. The tendency for a state of low tax-paying ability to rank low in library expenditure is much more marked. Figure 166 summarizes the data by regions.

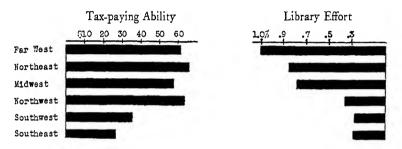


Fig. 168.—Regional summary of comparison of per capita tax-paying ability and library effort.

Figure 167 similarly compares indices of tax-paying ability and of library effort. The 1934 index of library effort constitutes that per cent which library expenditure is of the total amount the state could have raised under the model tax system. Figure 168 presents in regional summary form the index of library effort compared with that of per capita tax-paying ability.

#### SUMMARY

Whatever index of wealth is used, the same general conclusions are reached, namely, that economic ability is a significant factor in the variation of library development, and that individual states diverge from the general pattern. A few states expend for library service an amount beyond that which would be expected from their economic status, while others spend decidedly less. In this respect they exhibit the same characteris-

TABLE 117\*

Index of Economic Ability and Index of Public Library Development

New York. Connecticut. Massachusetts New Jersey. Rhode Island. Illinois. California. Delaware. Nevada. Pennsylvania Ohio. New Hampshire Vermont. Maryland. Minnesota. Iowa. Michigan Missouri. Wisconsin. Nebraska Oregon. Wyoming. Colorado. Maine. Montana. Indiana. Washington. South Dakota Kansas. Utah. North Dakota. Idaho West Virginia	I 2 3 4 4 6 6 7 8 8 9 10 11 12 13 14 14 14 16 17 18 19 20 21 22 23 24	Economic Ability  2 52 1 94 1.76 1.34 1.32 1.05 0.95 0 91 0.82 0 75 0 60 0 59 0 48 0 48 0.44 0 41 0 34 0 33 0 30 0 26 0.23	Public Library Development  0 80 1 56 2 31 0 96 1.14 0 43 2 06 0 71 0 63 -0 39 0 98 2 16 1 52 -0 11 0 15 -0 01 0 37 -0.37 0 58 -0 23 0 90 1.11
Connecticut. Massachusetts New Jersey. Rhode Island. Illinois. California. Delaware. Nevada. Pennsylvania Ohio. New Hampshire Vermont. Maryland. Minnesota. Iowa. Michigan Missouri. Wisconsin. Nebraska Oregon. Wyoming. Colorado. Maine. Montana Indiana. Washington South Dakota Kansas Utah. North Dakota Idaho	2 3 4 4 6 7 8 9 10 11 12 13 14 16 17 18 19 20 21 22 23	1 94 1.76 1.34 1.32 1.05 0.95 0.91 0.82 0.75 0.60 0.59 0.48 0.44 0.41 0.34 0.33 0.33 0.26 0.23	1 56 2 31 0 96 1.14 0 43 2 06 0 71 0 63 -0 39 0 98 2 16 1 52 -0 11 0 15 -0 01 0 37 -0.37 -0.37 0 58 -0 23 0 90
Massachusetts New Jersey Rhode Island Illinois California Delaware Nevada Pennsylvania Ohio New Hampshire Vermont Maryland Minnesota Iowa Michigan Missouri Wisconsin Nebraska Oregon Wyoming Colorado Maine Montana Indiana Washington South Dakota Kansas Utah North Dakota Idaho	3 4 4 6 7 8 9 10 11 12 13 14 16 17 18 19 20 21 22 23	1 94 1.76 1.34 1.32 1.05 0.95 0.91 0.82 0.75 0.60 0.59 0.48 0.44 0.41 0.34 0.33 0.33 0.26 0.23	2 31 0 96 1.14 0 43 2 06 0 71 0 63 -0 39 0 98 2 16 1 52 -0 11 0 15 -0 01 0 37 -0 37 -0 37 0 58 -0 23 0 90
Massachusetts New Jersey Rhode Island Illinois California Delaware Nevada Pennsylvania Ohio New Hampshire Vermont Maryland Minnesota Iowa Michigan Missouri Wisconsin Nebraska Oregon Wyoming Colorado Maine Montana Indiana Washington South Dakota Kansas Utah North Dakota Idaho	4 4 6 7 8 9 10 11 12 13 14 14 16 17 18 19 20 21 22 23	1.76 1.34 1.34 1.32 1.05 0.95 0.91 0.82 0.75 0.60 0.59 0.48 0.44 0.41 0.34 0.33 0.30 0.26 0.23	2 31 0 96 1.14 0 43 2 06 0 71 0 63 -0 39 2 16 1 52 -0 11 0 15 -0 01 0 37 -0.37 0 58 -0 23 0 90
Rhode Island Illinois. California Delaware. Nevada. Pennsylvania Ohio. New Hampshire Vermont. Maryland. Minnesota Iowa. Michigan Missouri. Wisconsin. Nebraska Oregon. Wyoming. Colorado. Maine. Montana. Indiana. Washington South Dakota Kansas. Utah. North Dakota Idaho	4 4 6 7 8 9 10 11 12 13 14 14 16 17 18 19 20 21 22 23	1.34 1.34 1.32 1.05 0.95 0.91 0.82 0.75 0.60 0.59 0.48 0.44 0.41 0.34 0.34 0.33 0.30 0.26	0 96 1.14 0 43 2 06 0 71 0 63 -0 39 0 98 2 16 1 52 -0 11 0 15 -0 01 0 37 -0.37 -0.37 0 58 -0 23 0 90
Rhode Island Illinois. California Delaware. Nevada. Pennsylvania Ohio. New Hampshire Vermont. Maryland. Minnesota Iowa. Michigan Missouri. Wisconsin. Nebraska Oregon. Wyoming. Colorado. Maine. Montana. Indiana. Washington South Dakota Kansas. Utah. North Dakota Idaho	4 6 7 8 9 10 11 12 13 14 14 16 17 18 19 20 21 22 23	1.34 1.32 1.05 0.95 0.91 0.82 0.75 0.60 0.59 0.48 0.44 0.41 0.34 0.34 0.33 0.30 0.26	1.14 0 43 2 06 0 71 0 63 -0 39 0 98 2 16 1 52 -0 11 0 15 -0 01 0 37 -0 37 -0 37 0 58 -0 23 0 90
Illinois. California. Delaware. Nevada. Pennsylvania Ohio. New Hampshire Vermont. Maryland. Minnesota. Iowa. Michigan. Missouri. Wisconsin. Nebraska Oregon. Wyoming. Colorado. Maine. Montana. Indiana. Washington. South Dakota Kansas. Utah. North Dakota. Idaho.	6 7 8 9 10 11 12 13 14 14 16 17 18 19 20 21 22 23	1.32 1.05 0.95 0.91 0.82 0.75 0.60 0.59 0.48 0.44 0.41 0.34 0.33 0.30 0.26	0 43 2 06 0 71 0 63 -0 39 0 98 2 16 1 52 -0 11 0 15 -0 01 0 37 -0 37 0 58 -0 23 0 90
California Delaware. Nevada Pennsylvania Ohio. New Hampshire Vermont. Maryland. Minnesota. Iowa. Michigan Missouri. Wisconsin. Nebraska Oregon. Wyoming. Colorado. Myoming. Montana. Indiana. Washington South Dakota Kansas. Utah. North Dakota. Idaho.	8 9 10 11 12 13 14 14 16 17 18 19 20 21 22 23	1.05 0.95 0.91 0.82 0.75 0.60 0.59 0.48 0.44 0.41 0.34 0.33 0.33 0.30 0.26	2 06 0 71 0 63 -0 39 0 98 2 16 1 52 -0 11 0 15 -0 01 0 37 -0.37 -0.37 0 58 -0 23
Delaware. Nevada. Pennsylvania Ohio. New Hampshire Vermont. Maryland. Minnesota. Iowa. Michigan. Missouri. Wisconsin. Nebraska Oregon. Wyoming. Colorado. Maine. Montana. Indiana. Washington South Dakota Kansas. Utah. North Dakota. Idaho.	8 9 10 11 12 13 14 14 16 17 18 19 20 21 22 23	0.95 0 91 0.82 0 75 0 60 0 59 0 48 0 44 0 41 0 34 0 33 0 33 0 26 0.23	0 71 0 63 -0 39 0 98 2 16 1 52 -0 11 0 15 -0 01 0 37 -0.37 0 58 -0 23 0 90
Nevada Pennsylvania Ohio New Hampshire Vermont Maryland Minnesota Iowa Michigan Missouri Wisconsin Nebraska Oregon Wyoming Colorado Maine Montana Indiana Washington South Dakota Kansas Utah North Dakota Idaho	9 10 11 12 13 14 14 16 17 18 19 20 21 22 23	0 91 0.82 0 75 0 60 0 59 0 48 0 44 0 41 0 34 0 33 0 33 0 26 0 .23	0 63 -0 39 0 98 2 16 1 52 -0 11 0 15 -0 01 0 37 -0.37 0 58 -0 23 0 90
Pennsylvania Ohio New Hampshire Vermont Maryland Minnesota Iowa Michigan Missouri Wisconsin Nebraska Oregon Woming Colorado Maine Montana Indiana Washington South Dakota Kansas Utah North Dakota Idaho	10 11 12 13 14 14 16 17 18 19 20 21 22 23	0.82 0.75 0.60 0.59 0.48 0.44 0.34 0.33 0.30 0.26 0.23	-0 39 0 98 2 16 1 52 -0 11 0 15 -0 01 0 37 -0.37 0 58 -0 23 0 90
Ohio. New Hampshire Vermont. Maryland. Minnesota. Iowa. Michigan Missouri. Wisconsin. Nebraska Oregon. Woming. Colorado. Maine. Montana Indiana Washington South Dakota Kansas Utah. North Dakota. Idaho	11 12 13 14 14 16 17 18 19 20 21 22 23	0 75 0 60 0 59 0 48 0 48 0 .44 0 41 0 34 0 33 0 30 0 26 0 .23	0 98 2 16 1 52 -0 11 0 15 -0 01 0 37 -0.37 0 58 -0 23 0 90
New Hampshire Vermont Maryland Minnesota Iowa Michigan Missouri Wisconsin Nebraska Oregon Wyoming Colorado Maine Montana Indiana Washington South Dakota Kansas Utah North Dakota Idaho	12 13 14 14 16 17 18 19 20 21 22 23	o 60 0 59 0 48 0 48 0 44 0 41 0 34 0 33 0 30 0 26 0 23	2 16 1 52 -0 11 0 15 -0 01 0 37 -0.37 0 58 -0 23 0 90
Vermont.  Maryland.  Minnesota.  Iowa.  Michigan  Missouri.  Wisconsin.  Nebraska  Oregon.  Wyoming.  Colorado.  Maine.  Montana.  Indiana.  Washington.  South Dakota  Kansas.  Utah.  North Dakota.  Idaho.	13 14 14 16 17 18 19 20 21 22 23	0 59 0 48 0 48 0 44 0 41 0 34 0 33 0 30 0 26 0 23	1 52 -0 11 0 15 -0 01 0 37 -0.37 0 58 -0 23 0 90
Maryland. Minnesota. Iowa. Michigan Missouri. Wisconsin. Nebraska Oregon. Wyoming. Colorado. Maine. Montana Indiana Washington. South Dakota Kansas. Utah. North Dakota. Idaho	14 14 16 17 18 19 20 21 22 23	0 48 0 48 0.44 0 41 0 34 0 33 0 30 0 26 0.23	-0 11 0 15 -0 01 0 37 -0.37 0 58 -0 23 0 90
Minnesota Iowa Michigan Missouri Wisconsin Nebraska Oregon Wyoming Colorado Maine Montana Indiana Washington South Dakota Kansas Utah North Dakota Idaho	14 16 17 18 19 20 21 22 23	0 48 0.44 0 41 0 34 0 33 0 30 0 26 0.23	0 15 -0 01 0 37 -0.37 0 58 -0 23 0 90
Iowa Michigan Missouri Wisconsin. Nebraska Oregon Wyoming. Colorado Maine Montana Indiana Washington South Dakota Kansas. Utah North Dakota Idaho	16 17 18 19 20 21 22 23	0.44 0 41 0 34 0 33 0 30 0 26 0.23	-0 01 0 37 -0.37 0 58 -0 23 0 90
Michigan Missouri Wisconsin Nebraska Oregon Wyoming Colorado Maine Montana Indiana Washington South Dakota Kansas Utah North Dakota Idaho	17 18 19 20 21 22 23	0 41 0 34 0 33 0 30 0 26 0.23	0 37 -0.37 0 58 -0 23 0 90
Missouri Wisconsin Nebraska Oregon Wisconsin Nebraska Oregon Wan Colorado Maine Montana Indiana Washington South Dakota Kansas Utah North Dakota Idaho	18 19 20 21 22 23	0 34 0 33 0 30 0 26 0.23	-0.37 0 58 -0 23 0 90
Wisconsin. Nebraska Oregon. Wyoming. Colorado. Maine. Montana Indiana Washington. South Dakota Kansas. Utah. North Dakota. Idaho	19 20 21 22 23	0 33 0 30 0 26 0.23	0 58 -0 23 0 90
Nebraska Oregon Wyoming. Colorado Maine Montana Indiana Washington. South Dakota Kansas. Utah North Dakota. Idaho	20 21 22 23	0 30 0 26 0.23	-0 23 0 90
Oregon           Wyoming           Colorado           Maine           Montana           Indiana           Washington           South Dakota           Kansas           Utah           North Dakota           Idaho	21 22 23	0 26 0.23	0 90
Wyoming. Colorado Maine Montana. Indiana Washington South Dakota Kansas Utah North Dakota Idaho	22 23	0.23	
Colorado  Maine  Montana  Indiana  Washington  South Dakota  Kansas  Utah  North Dakota  Idaho	23		I.II
Maine	•		
Montana Indiana Washington South Dakota Kansas Utah North Dakota Idaho	? ₄	0.22	0.02
Indiana Washington South Dakota Kansas Utah North Dakota Idaho	•	0.20	0 68
Washington South Dakota Kansas Utah North Dakota Idaho	25	0 05	-0 18
South Dakota Kansas Utah North Dakota Idaho	26	0 04	0.77
Kansas	27	000	0 52
Utah North Dakota Idaho	28	-0.18	-0 60
North Dakota	29	-0 21	-0.51
Idaho	30	-0 26	0.16
	31	-0 39	-1 11
West Virginia	32	-0 46	-0 64
	33	-0 55	-1 39
Arizona	34	-0 59	-0 50
Virginia	35	-0 76	-0 90
Florida	36	-0 85	-0 82
Texas	37	-0 89	−o <sub>97</sub>
New Mexico	38	-1 02	-1 07
Oklahoma	39	-1 07	-0.81
Tennessee	40	-1 11	-0 82
Kentucky	41	-1 14	-0 99
Louisiana	42	-1.17	-1 06
Georgia	43	-I 28	-1.14
North Carolina	44	-1 30	-0 97
Alabama	45	-1 55	-1 14
South Carolina	45	-1 55	-1.06
Arkansas	- 1	-1.61	-1.45
Mississippi	47		-1.28

<sup>\*</sup> Source: L. R. Wilson and E. A Wight, County Library Service in the South (Chic.: U. of C. Press, 1935), p. 10, Fig. 6, Table 51.

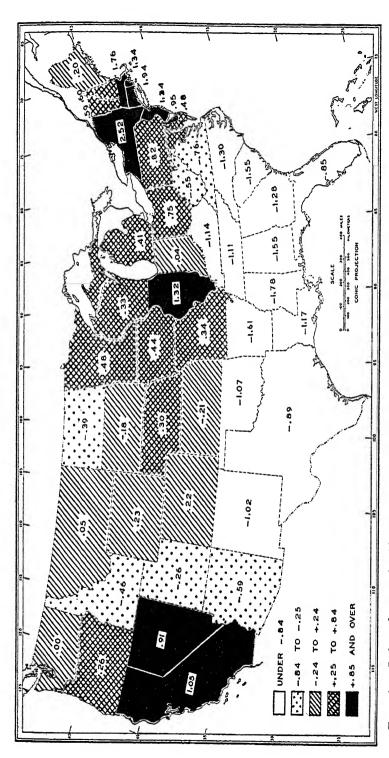


FIG. 169.—Index of economic ability. Source: L. R. Wilson and E. A. Wight, County Library Service in the South (Chicago: University of Chicago Press, 1935), Fig. 6, p. 10. (Goode Base Map, No. 110, published by the University of Chicago Press. Used by permission.)

tics evidenced in the relation of economic ability to financial support of education. Further conclusions growing out of the consideration of data presented in this chapter are: in general, areas which are most seriously lacking in library service are those having least to spend for it; individual states vary widely in their effort to support library service; and, other factors beside economic ability are important in determining the degree of library development within a given area.

Table 117 and Figures 169 and 170 summarize the evidence as to the distribution of economic ability in the form of an

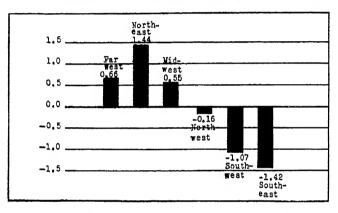


Fig. 170.—Regional summary of index of economic ability

index based on six separate factors. Figure 169 does not differ greatly from the maps of the separate indices of wealth which have been discussed. It is, however, somewhat more convincing by virtue of its composite nature. If Figure 169 is compared with the figure for library expenditure (Fig. 18), it is found that twenty-three states are in the same interval on both, and seven states rank two intervals higher with respect to wealth than with respect to library expenditure. Apparently, in relation to the wealth and library expenditure of other states these seven spend less for library service than they can afford. However, if the two maps were made more exactly comparable by basing the map of library expenditure on standard scores, only the two states, Missouri and Nebraska, of the seven would vary two intervals.

A comparison of Figure 169 with the library index map (Fig. 50) is more objective because of the strict comparability of the

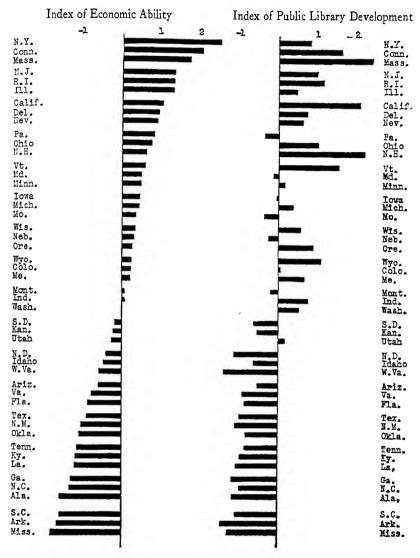


Fig. 171.—Comparison of index of economic ability and index of public library development.

legend used, but it adds little to what has already been demonstrated. Twenty-two states are in the same interval; two states, Pennsylvania and Missouri, stand two intervals higher in wealth

than in library service; and Wyoming ranks two intervals higher in library service than in wealth. This comparison is further clarified by an examination of Figure 171. In it only seven states show inverse deviation from their respective averages. The only inconsistency to be noted in comparing the relative status of the six regions (Fig. 172) with respect to wealth and library service is in the reversed position of the two bars of the Far West and the two bars of the Northeast. The states of the

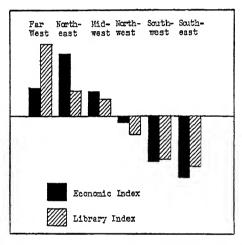


Fig. 172.—Regional summary of comparison of index of economic ability and index of public library development.

Far West have developed their libraries to a degree exceeding that predictable from their wealth, while in the Northeast, library development in relation to wealth has been relatively less extensive. The reversal of the status of regions is due, in part, to the dominant library development of California, and also to the comparative dissimilarity of library development among the states comprising the Northeast.

The purpose of establishing libraries, of stocking them with varied book resources, of staffing them with experts who can make their resources available to the public, is to have them used. The principal measure of use, as was shown in chapter iv, is per capita circulation. This has been, and still is, the library's chief yardstick for measuring its service to the com-

munity. Consequently the relationship between economic ability, as reflected in library expenditure, and per capita circula-

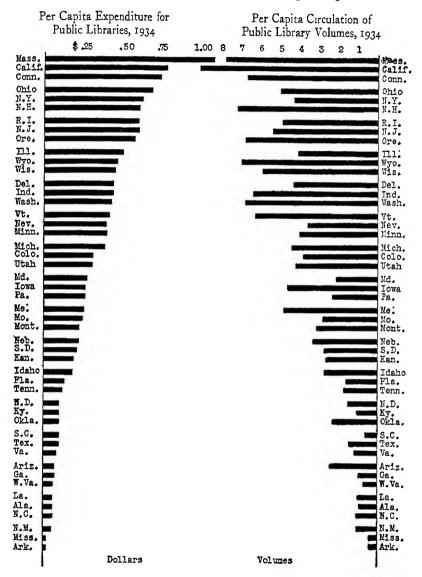


Fig. 173.—Comparison of per capita expenditure for public libraries, 1934, and per capita circulation of public library volumes, 1934.

tion is definitely significant. This is graphically portrayed by Figure 173, and (as also in chapter iv) indicates that in the case

of thirty of the states this relationship is a very close one. In fact, the bearing which expenditure has upon circulation is so great that Mr. Purdy, in his study of libraries in seven midwestern states, concluded that if libraries were given varying amounts for support, resulting variations in circulation could be predicted with a surprisingly high degree of certainty. The evidence presented in this study, and in others, leads to the conviction that effective library use rests ultimately and largely upon financial ability. For, other things being equal, where the latter is high, library service of a high order can be maintained; and, likewise, where it is low, poor library service may normally be expected.

<sup>15</sup> Purdy, op. cit., pp. 30-31.

# CHAPTER XV

# OTHER CAUSAL FACTORS

URNING from the roles which geography, population, and economic ability have played in producing variation in the development of the library as a social institution in the United States, it is now pertinent to consider other factors which have helped shape the library pattern of the nation. These are numerous, and, although it is not possible to treat them quantitatively, as has been done with the factors in the preceding chapter, they are no less significant.

# THE PHILOSOPHY OF THE AMERICAN LIBRARY MOVEMENT

Foremost among these factors must be placed the philosophy, or spirit which underlies the American library movement. Although the first free, tax-supported American public library was established approximately a century ago, this philosophy, or spirit, upon which the movement has been based still lacks definitive description. Even on the part of librarians there is disagreement as to what it is. The founders of the American Library Association in 1876 (a quarter of a century after the founding of the Boston Public Library) did not concern themselves so much with the formulation and statement of their philosophy as they did with the formulation of specific objectives and with the adoption of concrete measures by means of which these might be achieved. Depending upon the assumptions underlying the beginnings of the public library movement and the expression of philosophical opinions of former librarians, educators, and state and municipal officials concerning the purposes of libraries, the founders decided that the library movement, and librarianship in general, could profit from the organization of a professional association. Without loss of motion they founded one. They decided further that they needed a professional organ

of communication, a source of standardized supplies and equipment, a classification system and a body of cataloging rules, an additional major bibliographical tool dealing with American publications, and a library school for the training of competent personnel for the direction of libraries. In rapid order, The Library Journal was established, the Library Bureau began to produce supplies and equipment, the Dewey Classification and Relativ Index and the Cutter Rules for a Dictionary Catalogue were developed, the American Catalogue began publication, and the first library school at Columbia was projected. Dewey and Bowker, Cutter and Leypoldt, and their associates did these things, but largely left unsaid why they acted with such dispatch and unanimity, and what they thought and believed about libraries.

Three librarians of the younger generation, who have recently expressed their views on the subject, have ascribed the rise of the public library in America to three different causes or philosophies. Mr. Borden holds that the influences which brought the library into being were largely educational, democratic, and social. The library grew out of America's demand for educational opportunity and the necessity of training citizens for effective participation in democracy. It came, not so much in response to the imposition of influences outside of the people themselves, as to an inner, though not particularly articulate, urge from the people themselves.

Mr. Wellard, a student from England, based his conclusions largely upon English parliamentary reports and debates of the 1840's and 1850's and upon American executive, legislative, and state department of education reports of the 1830's and later. He associates the development of the public library in England, and to a less extent in our own country, with the growth of philanthropy and the reform movement which undertook to improve the general lot of the laboring class. The library, he contends, was conceived at first as an antidote to the

<sup>&</sup>lt;sup>1</sup> A. K. Borden, "The Sociological Beginning of the Library Movement," *Library Quarterly*, I (1931), 278-82.

public house and the saloon; later, it was regarded by some as "an annex to the public schools"; and, later still, it was supposed to serve as both a recreational and educational institution, in which the public was allowed considerable influence in determining the type of books to be selected for its use.<sup>2</sup>

Mr. Orman, looking at the question during the darkest period of the depression, when library revenues were being singled out by many communities for early and deep slashing, sees the American public library arising in response to a demand of an economic order to secure a body of workers, who, trained in part (Americanized) by the library, could produce goods effectively. This demand, he contends, has grown more feeble in the past decade, as may be seen in the smaller support received by libraries now that the machine has been brought to such a degree of perfection that it is no longer necessary to make special provision for the education of the worker through the library.<sup>3</sup>

Mr. Joeckel and Mrs. Fisher, two other writers, trace, respectively, the historical forms of library organization which preceded and accompanied the beginning of the public library movement<sup>4</sup> and, also, the growth of interest in education at various levels as it found self-expression through the public school, lyceums, chautauquas, women's clubs, and other organizations concerned with educational and cultural advancement, and as it provided the principal stimulus to public library development.<sup>5</sup>

All of these statements contribute something to the understanding of the assumptions upon which the public library has rested in the past and upon which it rests today. America's de-

<sup>&</sup>lt;sup>2</sup> J. H. Wellard, *Book Selection*, *Its Principles and Practice* (London: Grafton and Company, 1937), chap. vi, pp. 71-82.

<sup>&</sup>lt;sup>3</sup> O. C. Orman, "The Philosophy of Librarianship," American Library Association, Bulletin, XXIX (1935), 820-27.

<sup>&</sup>lt;sup>4</sup> C. B. Joeckel, *The Government of the American Public Library* (Chicago: University of Chicago Press, 1935), chap. i.

<sup>&</sup>lt;sup>5</sup> D. C. Fisher, Why Stop Learning? (New York: Harcourt, Brace and Company, 1927), pp. 44~78.

votion to the principles of freedom, of equality, and of democracy is written alike in the Declaration of Independence, in the deeds of the soldiers of the American Revolution, and in the Constitution of the United States. Belief in education, and the accompanying desire to bring it within the range of the individual and of the general public, found expression in various ways: in the organization of the association library by Franklin in 1731; in statements of Washington, Jefferson, and other early national leaders; in the establishment of state universities;7 in the inauguration of state educational systems in the early 1800's; and in the provision of school district libraries in a number of states prior to the founding of the Boston Public Library in 1851. The growth of the lyceum movement from the early 1800's to the 1860's, the activities of the Smithsonian Institution and of the U.S. Bureau (now Office) of Education in behalf of libraries, the increased leisure within homes as well as in industry, the development of women's clubs and university extension service from 1870 to 1920, and the establishment of evening classes during the first third of the present century—all these have emphasized this belief, and they have accentuated the demand for the services of the library as contributing to the promotion of general education and to the preparation of the individual for membership in a democratic society. Philanthropists and organized minorities have shared this same point of view. Since the 1920's, the adult education movement has further reinforced it; and since 1930, the depression has brought into clear perspective both the educational and recreational functions which the library performs in times of stress. On such a foundation the library movement has rested, and on

<sup>&</sup>lt;sup>6</sup> C. A. Beard, in National Education Association of the United States, Educational Policies Commission, *The Unique Function of Education in American Democracy* (Washington: National Education Association of the United States and the Department of Superintendence, 1937), summarizes the educational philosophy of Washington, Jefferson, and of the Jacksonian era. His summary serves as excellent background for the library movement which developed later.

<sup>&</sup>lt;sup>7</sup> North Carolina, Laws of the State: 1715–1796 (Raleigh: J. Gales, 1821), sec. 41, p. 51. The constitution of this state called in 1776 for the founding of one or more universities.

such assumptions librarians and others have joined in common cause to provide a broader base of support for library service in those regions in which it is inadequate or is totally lacking.

#### PHILANTHROPY

The contribution which philanthropy made to the promotion of library service has been suggested in chapter i in the statement concerning the gifts between 1896 and 1923 of Andrew Carnegie and the Carnegie Corporation of New York. It was shown that relatively few library buildings were erected in New England through gifts from those sources as most of the New England communities already had library buildings. The Middle West, the Northwest, and the Far West were the principal beneficiaries. They were financially able to meet the conditions incident to receiving grants, whereas the Southeast and Southwest were not. The period 1896-1923, during which these grants were available, witnessed a great extension in library service. Sixteen hundred and seventy-seven buildings, including branches, were erected in forty-six states and the District of Columbia and served a total population of 32,956,500.8 Provision of buildings and of endowment for support by other donors has been made, likewise, in every section of the country, particularly in New England, and has added greatly to the extension of library privileges.

#### ATTITUDES

To measure the effect of attitudes is extremely difficult and requires the application of highly specialized techniques under controlled conditions. But there can be no doubt that attitudes characteristic of the various regions and subregions of the nation have contributed to the multiplication or limitation of library facilities. Belief in education was firmly lodged in the New England mind. The establishment of Harvard, in 1636, and of the first printing press, in 1638, occurred in Cambridge

<sup>&</sup>lt;sup>8</sup> W. S. Learned, *The American Public Library and the Diffusion of Knowledge* (New York: Harcourt, Brace and Company, 1934), Table facing p. 72.

before the Plymouth Fathers had spent two decades in the American wilderness. New York had been the first state to establish school district libraries supported by public funds—a type of public library that had a precarious existence for a number of years subsequent to 1835—and it has continued to assist registered public libraries through grants-in-aid until the present time.

The Massachusetts town, however, early developed the town library, and it also produced in considerable number the library donor. To the same state belongs the distinction of establishing, in 1890, the first state library commission charged specifically with the promotion of public library service. But it has fallen to the lot of such states as California, Wyoming, Indiana, and New Jersey to develop extensively state and county library systems which have, through planned co-operation, freely placed the resources of many libraries at the disposal of the public.

The idea of local self-government, so strongly entrenched in the New England mind, and communicated to minds in other regions, has made it difficult for libraries located in different political units to draw upon each other for extensive assistance in the organization and administration of general co-operative service. In accounting for the development of county libraries in California, it is interesting to speculate as to whether or not the dependence upon co-operation in regard to irrigation and fruitselling enterprises of the agricultural interests of that state may not have played a significant role.9

In the Southeast, a different set of attitudes has played an equally significant role. Prior to the Revolution, the Southeast shared with the other colonies their interest in independence and

<sup>&</sup>lt;sup>9</sup> In 1878, the legislature of California passed the first law designed to provide proper public control of the appropriation and use of water. Cf. Frank Adams, "Second Progress Report of Co-operative Irrigation Investigations in California," U.S. Department of Agriculture, Office of Experiment Stations, Circular 108 (Washington: Government Printing Office, 1911), p. 8. The California Fruit Growers Exchange (formerly the Southern California Fruit Exchange) was incorporated in 1895. Cf. J. W. Lloyd, "Co-operative and Other Organized Methods of Marketing California Horticultural Products," University of Illinois Studies in the Social Sciences, VIII (March, 1919), p. 10.

equality of opportunity. Virginia furnished the author of the Declaration of Independence and the leader of the armed forces of the Revolution. North Carolina wrote into her first constitution, in 1776, a provision for a state university. But slavery, the invention of the cotton gin, and the consequent development of cotton culture modified these attitudes and, so far as libraries were concerned, led to the development of private or association libraries prior to the Civil War. The war was followed by a general prostration which continued for several decades, and then the association library for whites began to multiply.

At the turn of the century came the development of the public library, which at first offered to Negroes only a limited service or none whatever. At present, there are but seventy-five public libraries in the Southeast and Southwest which provide service to Negroes; and that is inferior as compared with the service to whites. The attitude that "book learning" is of little value to the Negro has given way but slowly. This has not only delayed the development of public library service to Negroes, but on account of legal complications, to which the provision of certain services to two races within a state gives rise, it has delayed the provision of such service generally.

Mr. Purdy, in his study of the variation in library service in seven of the Middle West states, found that, although economic ability and urbanization accounted largely for variations in library status, they failed to account, to the degree anticipated, for the status of the library in Indiana. The actual development of public library service in many counties of that state was materially higher than would have been predicted from the wealth and urbanization of the respective counties. To He came to no conclusion as to the cause which produced the exception; but the opinion might be offered that it was due to the attitude held toward public education by many of the early settlers and which had found expression in a provision of their constitution of 1816,

<sup>&</sup>lt;sup>10</sup> G. F. Purdy, "Public Library Service in the Middle West" (Unpublished Ph. D. dissertation, Graduate Library School, University of Chicago, 1936), pp. 87–88.

authorizing the establishment of "library companies." These companies were to be located at the county seat of each new county and were to be supported by the proceeds of 10 per cent of the sale of town lots. Here was an attitude favorable to the inclusion of the inhabitants of a whole county in a library service area—a unit larger than the local school district, or township, or municipality in which the library happened to be located.

The following factors have undoubtedly contributed in differing degree to the varying pattern of library development in America: the belief in Indiana in the efficacy of general education; the adherence in the New England and many other states to the ideas of local self-government within town and municipal limits; the familiarity in California with co-operation in agricultural activities; the attitudes in the Southeast, called into being through slavery and a cotton economy; and the impacts, in general, of European and other cultures upon American institutions. Attitudes and ideas such as these, as well as economic and other factors, have largely determined the availability of the open book to countless thousands.

# THE INFLUENCE OF WOMEN'S CLUBS AND OTHER ORGANIZATIONS

The influence of attitudes in the abstract has been shown in the preceding paragraphs. When the history of the public library movement in the United States is written, the part which women's clubs have played in it—organizations in which an attitude toward general culture has been made concrete—may rank well along with that played by the philanthropist and the advocate of freedom, education, and democracy. Mrs. Fisher, in Why Stop Learning? vividly sketches the rise and development of these organizations in the late 1800's. The philanthropist has given money outright for buildings or endowment; the advocate has striven for a general cause; the women's clubs, on

<sup>11</sup> Joeckel, The Government of the American Public Library, p. 14.

<sup>12</sup> Fisher, op. cit., pp. 79-115.

the contrary, have initiated movements for the establishment of local libraries, have provided local support, have joined with professional librarians and other civic bodies in securing statewide library legislation, and in general have been, next to librarians, the principal promoters of library service in many states.

Miss Sullens, in writing of their influence upon the library movement in general and with special respect to Oklahoma, says, "Women's clubs, in addition to having started two-thirds of the state's public libraries, have been in the vanguard of almost every forward movement made for library service in Oklahoma."13 Similar testimony might be offered by many other states. Since 1900, in the period in which organizations for men and women have greatly increased, the American Association of University Women, the League of Women Voters, the National Congress of Parent-Teachers, the American Legion Auxiliary, and the men's service clubs have also joined in the support of libraries and have contributed especially to the enactment of recent legislation for state aid and the expansion of state library agencies in states such as Illinois, Ohio, Arkansas, and Vermont. These organizations have not only been, in many instances, extensive consumers of library service themselves, but they have sought the extension and improvement of such service to others.

### LEGISLATION

Philosophies and attitudes concerning libraries usually assume formulated expression in legislative enactment. Thus the public will in regard to them is manifested. The form which library legislation has taken, therefore, has been extremely important in determining the nature and extent of library service.

As has been stated in an earlier chapter, legislation for the support of schools, and for the support of libraries, presents two fundamental differences: (1) the state is held responsible for

<sup>&</sup>lt;sup>13</sup> E. D. Sullens, "The Inter-relation of Women's Clubs and Library Work, with Special Reference to Oklahoma" (Unpublished Master's thesis, University of Illinois, 1930), p. 34.

the support of the former, whereas the local government is usually held responsible for the latter; and (2) legislation for the support for schools is mandatory, while that for libraries is permissive. The state must see to it that public schools are supported. This support may be provided by the local unit, by the state itself, or by both. The important fact is that in the state is vested the responsibility for school maintenance. But in the case of libraries, the state permits the local unit to support the library if it desires to do so. If the local unit does not provide support, the state does not usually have to assume responsibility. Michigan, alone, has written a mandatory clause into its constitution concerning the support of libraries.

The influence of the form of legislation, state and local, undoubtedly accounts for much of the success, or lack of success, of library development. The fact that approximately 2,000,000 people outside of municipalities in Illinois are without library service may be due in large measure to the fact that library legislation in Illinois has favored municipal rather than county library development. Charter and legislative provisions bear the impress of municipal rather than county forms. The lack of economic ability and urbanization in certain sections of the state, while contributing to the unfortunate situation, does not account for it satisfactorily. As Mr. Joeckel says:

In common with many other functions of government, the public library suffers from certain obvious difficulties in rendering efficient and complete service to all the people. In the main, these difficulties center about the unit of library service.<sup>14</sup>

The Illinois law follows the line of historical development. It is based upon the conception of library service as a municipal function limited largely to municipal boundaries. Except for such service as has been provided through the Library Extension Division of the Illinois State Library and the Works Progress Administration, the residents of only one Illinois county enjoy the privileges of county-wide library service.

The highly developed system of county libraries in Cali-

<sup>14</sup> Joeckel, The Government of the American Public Library, p. 263.

fornia is due, in part, to a body of legislation which makes such service easily possible. Provisions for organization, administration, and support are adequate for the functions proposed; and additional legislation concerning the functions of the state library and provision for library materials for schools have made possible a co-ordination of library resources scarcely to be equaled elsewhere in the country. To somewhat similar legislation the relatively wide coverage of rural areas in Wyoming and New Jersey may be attributed, in part; and in Indiana also, the extensive service provided for rural inhabitants may be due to the rather broad freedom which the state has given to local library boards in permitting them to extend service from municipal libraries to townships and counties. One of the most notable examples of the effect of different forms of legislation in the same communities is that which in England has been afforded by legislation concerning libraries. Prior to 1919, library support was limited to a penny the pound. Following 1919, the penny rate was removed, broad powers were given to boards in control of municipal libraries, and new legislation providing for county service was enacted, which, when coupled with grants-in-aid from the Trustees of the Carnegie United Kingdom Trust, has made possible the almost complete coverage of England within less than two decades. 15

A further effect of legislation is revealed when the legislation is accompanied by appropriations for the direct support of library service through state grants. Such legislation has been operative in Ohio during the biennium 1935–37, during which time \$100,000 has been annually available for the improvement and extension of such service. Mr. Noon, in commenting on the effect of this legislation, reports that, whereas in 1935 libraries in only 9 counties were extending book service to all residents, the number has increased in two years to 38, and in 33 other counties libraries were supplying book collections to

<sup>&</sup>lt;sup>15</sup> Great Britain, Board of Education, Public Libraries Committee, Report on Public Libraries in England and Wales (London: H.M. Stationery Office, 1927, reprinted in 1935), pp. 22-23, 203.

rural schools.<sup>16</sup> Ohio has also given another demonstration of the way in which library service is affected by legislation through two provisions which place library support upon taxes derived from intangible property and which make possible extension of service to areas outside municipalities. The former has resulted in a changed basis of support, and the latter, as described above, has contributed to the extension of service to rural areas.

#### TAXATION

The form of taxation upon which library support must rest also affects the extent and effectiveness of that support. In-asmuch as the provision of libraries has usually been considered the function of local governments, real estate and real property have had to bear the principal burden of support. In recent years, these have constituted increasingly unsatisfactory and inadequate bases. Concentration of wealth in major centers and municipalities, as contrasted with surrounding rural areas, and limitation of the use of the revenues produced by such concentrations to those areas in which the wealth is located make adequate support outside of the favored localities practically impossible.

#### SCHOOL AND LIBRARY ORGANIZATIONS

Variation in library service has also been largely conditioned by the part which school and library organizations have played in the extension and diffusion of knowledge.

The free public school is one of the distinctive institutions of American life. Approximately twenty-nine million pupils enrol annually in its elementary and secondary departments, and the instruction has become increasingly book- or library-centered. In spite of this fact, however, there has been, as was shown in chapter vi, the greatest diversity in the provision which schools in different states have made for school library support.

<sup>&</sup>lt;sup>16</sup> P. A. T. Noon, "Ohio's Second Campaign for State Aid," *Library Journal*, LXII (1937), 277-78.

In many instances, the erection of school buildings, the training of teachers, and problems of organization and administration have consumed money and time to the exclusion of library development and support. These, seemingly, have constituted the things that had to come first. Far too frequently the library and the librarian have come—if they have come at all—last. Superintendents, principals, and teachers have concentrated the energies and resources of the schools upon the teaching of reading: but many of them have failed to concentrate upon training their pupils to be permanent readers and upon the development of reading facilities which would make continuation of reading possible. Again, while legislation and departmental regulations are specific as to length of term, number of pupils per teacher, salaries and certification of teachers, curricula, etc., yet specific regulations governing school expenditures for library materials are frequently lacking. And far too often, in instances where financial support for both schools and libraries are necessarily very limited, schools and libraries fail to formulate co-operative arrangements by which the objectives of both might be more effectively and extensively achieved. The recent growth of the adult education movement, with the periods of both formal and informal education extending increasingly upward, has further emphasized the necessity of the closest co-operation between both organizations. Excellent examples of this in many places render failure in other areas only the more unfortunate.

The American public library had no antecedent in European countries. It sprang out of the desire in America for freedom, for equality of educational opportunity, and for democracy. When the idea became firmly established that the school should be free, it followed logically, though a generation later, that the library should likewise be free. The American librarian, individually and collectively, has resolutely stood upon that basis and has developed this special institution on the fundamental assumption that through it freedom, equality of education opportunity, and preparation for participation in a democration government might be achieved. The results, after sixty years

of collective activity in the public library field, are that in 1934 6,235 libraries possessed 100,470,215 volumes and spent \$45,-855,400 in making 449,998,845 loans to 26,000,000 borrowers in forty-eight states.

Variation in this service, however, as in that of the library service in school, university, and special libraries, has been influenced by the part which librarians have played, or failed to play. Individual libraries, local library clubs, state library associations and state library agencies, the American Library Association, and other national organizations engaged in various forms of library activity, all have participated in shaping, for good or otherwise, the national library pattern. Too frequently they have stood alone in their effort to advance the library's cause. At other times they have joined forces with like or allied organizations. Frequently they have lost themselves in busy detail; again, they have forgotten detail through broadly comprehensive service. Here, they have been concerned with individuals; there, with groups. Thus, in varied ways, with the schools and other forces which have shaped and influenced the educational status of a people, they have been filling in the details of the reading pattern of the nation and have been aiding in writing the geography of reading in the United States.

# PART IV CONCLUSIONS AND RECOMMENDATIONS

## CHAPTER XVI

# CONCLUSIONS AND RECOMMENDATIONS

HE purpose of this study, as stated in the Introduction, has been to take inventory of the American public library as an institution of broad social significance. Effort has been made to show how library resources have been provided in the states and regions of the nation, and to what extent libraries have been supported and used. Specifically, the study has undertaken: (1) to indicate the distribution of libraries; (2) to compare this distribution with that of other institutions, organizations, and media for the communication of ideas bearing a more or less direct relationship to library development; (3) to discover, if possible, the causes which have brought about inequalities in the distribution of libraries; (4) to consider the significance to America growing out of the existing inequalities; and (5) to suggest means which may be employed to effect greater equalization of library resources throughout the nation.

The problems of distribution have been demonstrated at length through the tables, maps, summaries, and interpretation of data in Parts I–III. Disparity in the distribution of libraries has been shown to exist not only in the nation as a whole, but within every region, state, county, and local community. Library resources range from the great concentrations in public, university, and governmental libraries to individual volumes that reach the country dweller through parcel post or the bookmobile; and largely outside the borders of thousands of municipalities possessing libraries there are approximately 40,000,000 people to whom public library service has not yet come. In a country which has extended to all of its youth formal educational opportunity on a scale unapproximated elsewhere, and where presses can turn out millions of copies of books and

magazines with amazing rapidity, provision for a fairly even distribution of these media for the transmission of ideas to all of the people has been very unevenly developed. The tragedy of the economic order of inequality between production and distribution is repeated in the realm of books. In the midst of potential plenty there is actual want.

The condition revealed by Part I does not stop, however, with disparity in provision of libraries and books. It is accompanied, as is shown in Part II, by differences in the possession by regions, states, counties, and communities, of the services from schools, adult educational organizations, and other social and cultural institutions and media for the dissemination of ideas—such as bookstores, magazines, daily newspapers, the moving picture, the radio, and the telephone. Where library resources are abundant, these are likewise abundant. "To him that hath" libraries and books, these are likewise added; and conversely, "to him that hath them not," these others are relatively lacking. In this sense, as several have demonstrated, the library becomes a ready index by which to measure the standard of living, or, as a sensitive thermometer, it serves to register the cultural temperature of many areas of America.

The causes which have contributed to this variation have been shown in Part III to fall into several categories. Some are incident to geographical and topographical conditions; some to the composition, rate of change, and migrations of population; some to the educational status of communities or regions; some to the economic stability of tenant, farmer, miner, and manufacturer who comprise the general social order. All of these causes are somewhat susceptible of measurement, and indices of correlation between them and the status of libraries may be worked out.

Other causes cannot be so treated. They depend upon the

<sup>&</sup>quot;"City Is Ranked Low in Cultural Level," a report of an address by the Rev. Dr. C. F. Potter, New York Times, LXXXVI (October 5, 1936), L-13; Charles Angoff and H. L. Mencken, "Worst American State," American Mercury, XXIV (1931), 1-16, 175-88, 355-71; R. A. Miller, "The Relation of Reading Characteristics to Social Indexes," American Journal of Sociology, XLI (1936), 738-56.

willingness and effort of people to support essential institutions and upon attitudes which are concretely expressive of themselves through co-operation—or its absence—through legislation, through forms of taxation and of governmental organization and administration. The library resources of the city, barring a number of notable exceptions, have not generally crossed the boundaries which separate it from the country. Devotion to the idea of local self-government has, for the most part, prevailed over the state's assumption of its own responsibility for library support.

There are yet other causes which find their expression through philanthropists, through articulate organizations, and, finally, through schools and libraries whose principal concern has been to make Americans a literate and cultured people.

#### THE SIGNIFICANCE OF READING

To two questions which were asked at the outset, no answers have been given, and only the briefest will be attempted here. Possibly it will suffice, in the case of the first, merely to raise the question in the hope that an answer, or many answers, to it may be attempted on a widely extended front. What difference, after all, does it make that library resources are partly, or wholly, lacking in many areas in the nation?

Since the middle of the fifteenth century, the open book in the hand of the individual has become an increasingly common phenomenon. Through the book, knowledge has been conserved and passed on to the next generation. In spite of the tremendous popularity of the radio and the moving picture, print still remains the medium through which these services to mankind can best be rendered. In America, within little more than a century, the public school has been so developed that literacy of all the population has been largely achieved. Hundreds of thousands of teachers have been seeing to this in hundreds of thousands of schoolrooms. Millions of books issue annually from the press, the daily newspaper and magazine are to be

found at every turn, and in 1934, 6,235 libraries circulated 449,998,845 books in America.

But the sociologist, the psychologist, the political scientist, the student of education, and the librarian have only here and there seriously undertaken to determine what the social significance of reading actually is. The children's librarian long ago discovered that children liked to read and that there were certain kinds of books in which they found their greatest satisfaction. The school librarian understands what books are best suited to the adolescent mind and that through the use of the school library many of the school's social as well as intellectual objectives are attained. The college librarian has frequently attributed the failure of new students to pass their first examinations to their limited vocabularies or to their lack of speed in reading. The public librarian daily witnesses the part which books play in carrying on the work of the community in its provision of wholesome recreation, in its enlargement of educational opportunities, and in its effectiveness in the promotion of human readjustment during periods of great depression. The university librarian is aware of the use which the scholar makes of bibliographical apparatus and resources for research in advancing knowledge.

The teacher of art, or literature, knows that if the student is exposed in appropriate ways, and frequently enough, to great pictures or works of literature, the exposure may lead to artistic appreciation. The sociologist studies reading as affecting delinquency, or social adjustment. The political scientist tries to understand how print is used as propaganda. The advertising expert depends upon it to overcome sales resistance or to stimulate buying. The economist and the industrialist are concerned with its effect in shaping the economic concepts of the entire population. The student of character education attempts to determine how what a child reads influences character formation. The student of reading analyzes the interests which lead people to read, the effect of availability of reading materials upon what is read, and the degree to which age,

education, sex, occupation, marital, economic, and social status affect the kind and amount of material read.

But, in spite of all these separate efforts to discover and to understand the social significance of this well-nigh universal phenomenon, a united attack has not yet been made to this end. The statement from Sir Francis Bacon's essay "On Studies," that "reading maketh the full man," still stands as possibly the best generalized answer that has ever been given, although that answer was written more than three centuries ago, and the library of today rests upon the assumption that underlies it.

This study does not attempt to answer how reading makes a "full man" or of what this fullness consists. But it does raise these questions, and over against them sets the major facts with which this study has dealt, and which now face librarians and all other Americans.

If scholars and investigators in certain regions do not possess the research materials essential to the solutions of problems with which the regions are confronted in their agricultural, industrial, and cultural development, the problems upon which they concentrate will correspondingly fail of solution. If 40 per cent of the nation's schools lack school libraries, then many members of the oncoming generation can scarcely be expected to build up those permanent habits of reading and reflective thinking with which they should be equipped to face the future confidently. If 45,000,000 people are largely without public library resources, the efforts of many millions of them to adjust and readjust themselves satisfactorily to a rapidly changing, complex civilization will fall far short of full attainment.

If the drift from rural areas to urban centers, which has characterized American population trends in the past, continues in the future, as it seems it will, America, in replenishing its great metropolitan centers, will draw upon those areas in which reading facilities are least available and where the benefits which flow from reading have been only partly realized. It will draw in part from problem areas, the limitations of which,

in the Baconian sense, keep men from growing "full"—limitations which can only be removed through support of educational and reading facilities derived not only from the areas themselves but from the states and the nation into which the excess population of the problem areas is ultimately drawn.

#### PROPOSED MEASURES

The answer to the final question, "What can be done to provide library resources where they are inadequate or do not exist at all?" has been dealt with indirectly throughout the whole body of the study. Certain measures, however, are so important in affecting further change that they may be lifted out of the preceding chapters and re-emphasized here.

- I. The first of these is continued study of the pattern of reading in the United States and of all the influences which give it its present form. A clear understanding of a problem is fundamental to its solution. The general pattern of the facilities for reading outlined in this book and in statistical surveys of the American Library Association, in special studies of state library associations and state planning boards, in surveys of regions such as the Southeast and the Middle West, and of individual states and counties such as Illinois and Westchester County, New York, must be further considered, and those details which are essential to the better understanding of the problem as a whole must be sketched into its design.
- 2. Progress in the fields of modern science and education has rested largely upon the exact measurement of the results of scientific and educational procedures. When problems have been isolated and defined, all the data possible which bear upon their solution are assembled and carefully applied. One of the great limitations of librarianship, today, is that it lacks a fundamental body of data as well as of special studies which can be compared exactly and applied to the solution of the problems by which it is beset. The American Library Association, the state library agencies, and the Library Service Division of the U.S. Office of Education should collaborate in securing such

data, and the advanced library schools and allied university departments should co-ordinate their efforts to perfect measurements by which library service may be refined and better adjusted to social purposes which the library has been established to promote. The determination of the social significance of reading might well be one of the problems on which such groups of students might make a combined attack.

- 3. The part which the publisher and bookseller should play may likewise be suggested. Their attempt to discover what constitutes the readable book for that part of the population whose reading ability is somewhat limited, to distribute books that fall below a certain cost, and to experiment in discovering new sales opportunities seem timid when contrasted with the methods which other forms of industry and business employ in overcoming obstacles. Cooperative study of reading and its effects and bold experimentation on the part of publishers and booksellers might go far toward increasing the volume and profit of their business, and at the same time might contribute to the development of a wider, better informed, total reading public.
- 4. It is essential that this kind of study shall be followed by constructive planning such as has been projected by library organizations in forty-five states, and that the plans adopted shall utilize all pertinent information available. As the Wilson and Wight study of service by southern county libraries pointed out, the librarians of the Southeast, at their meetings in 1926 and later, outlined a plan which has contributed greatly to the development of libraries in that region, in spite of the difficulties which it has been shown in preceding chapters attend upon library extension there. In general, these plans called for: (a) the establishment in the region of additional library schools for the training of a competent library personnel; (b) the formulation by the accrediting agency of southern high schools and colleges of library standards for their membership; (c) the demonstration of effective county-wide library service through a number of strategically located demonstration libraries; (d) the appointment of school library supervisors in state

departments of education; (e) the description of the resources for research held by libraries in the region; (f) co-operation with other professional organizations, civic bodies, and educational foundations in promoting library extension; and (g) the appointment of a policy committee which should continuously concern itself with the major library problems of the region as a whole.<sup>2</sup> Plans of this character, based upon the known needs of a city, county, state, or region, if steadily developed by all the interested groups suggested, will ultimately find expression in constructive accomplishment.

- 5. Once plans have been formulated, it is imperative that they be written into effective laws which will insure the attainment of the objectives desired—laws which embrace the principles of co-operation and of county, regional, or state service as contrasted with those laws which place excessive emphasis upon service within unduly narrow political boundaries. Among the provisions which such general public library laws should contain are:
- a) A strong state library agency with broad responsibilities for fostering library development in the state, co-ordinating the activities of all related agencies in so far as they involve library service, rendering specialized library service to other governmental departments, and administering state and federal aid for surveys, extension, and support;

b) State certification of professional library workers under a system of graded service;

c) Authority to local governments for the establishment and support of libraries with provisions for service by contract, or by the combination of counties, or other units, into a regional system; and

d) Financial aid from the state for the support of local, regional, or other library service essential to the economic, social, and cultural well-being of all the residents of the state.<sup>3</sup>

6. The point at which the library movement in the United States has been least successful is that at which it has undertaken to extend library service into predominantly rural farm areas. It is exactly in that place that the school and the church

<sup>&</sup>lt;sup>2</sup> L. R. Wilson and E. A. Wight, *County Library Service in the South* (Chicago: University of Chicago Press, 1935), pp. 20, 22.

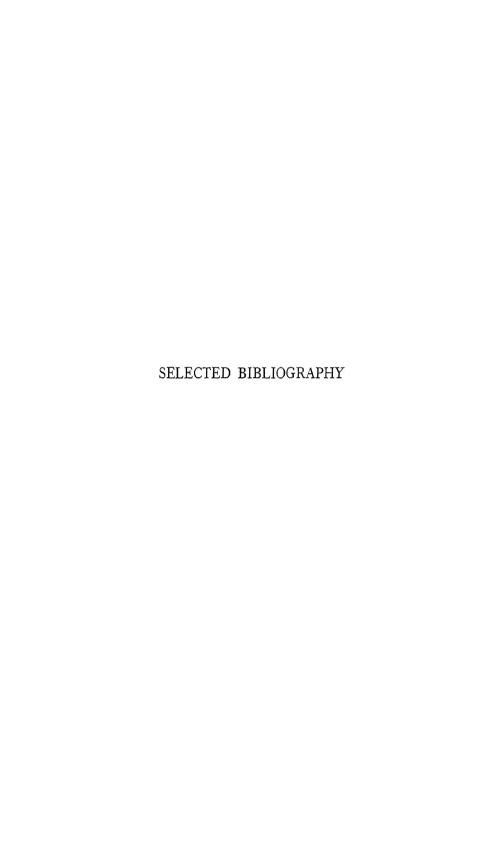
<sup>3</sup> Ibid., pp. 205-6.

have experienced their greatest difficulties. The library, the school, the church are confronted alike with aspects of the same problem. Their efforts to solve it singly have been generally unavailing. It is only when it is attacked jointly, as it is in some states where the county library has been developed, that the results are satisfactory. It is important, therefore, for these institutions to make a common attack on the problem with the cooperation of the county and state health and education officers, the county, state, and federal farm and home demonstration agents, the rural sociology and extension departments of the land-grant colleges and universities, and the farm, adult education, and civic organizations interested in the enrichment of rural life. Altogether they constitute a group whose potential total service to rural America has been as yet only dimly visualized.

- 7. The development of the American school system has been phenomenal. Phenomenal, also, has been the development of library service to the school. But of the two, the development of library service to the school, either directly or through contractual arrangement with the public library, has been the less satisfactory. Boards of education and school administrators in the United States have provided in their budgets for salaries, laboratory equipment, and other operating expenses, but, by and large, they have failed to provide in the same way for library service. Now that library materials play an indispensable part in modern education, that high school instruction involves 60 to 75 per cent of the high school population, and that the public school and the public library are being involved in supporting a growing program of adult education, this improvident and unintelligent procedure should be replaced by an adequately supported plan which will contribute to the training of a permanent, discriminating reading public in America.
- 8. The card, bibliographical, and interlibrary services of the Library of Congress, and of other libraries of the federal government, have been of such great importance to scholars and in-

vestigators in every part of the nation that generous provision should be made for their extension and support. These resources, so essential to the solution of problems inhering in the agricultural, industrial, and cultural development of America, should be developed in such a manner and to such a degree as to reduce the great inequalities now limiting the effectiveness of research in many areas.

- 9. The final measure proposed is the assumption by the state of responsibility for library as well as for school service, with aid from the federal government appropriately safeguarded. Variation in economic ability, the shift in the point at which taxes are collected, the trend of cities to recruit themselves from rural areas, the fact that the United States is a democracy and that its stability rests upon the intelligence and understanding of all its people—these facts lead to the conviction that if equalization of library resources is to be achieved, it can best be done through state and federal participation rather than through complete dependence upon local support. Unless support is provided in this fashion, the geography of reading in the United States will continue to show areas in which the transmission and cross fertilization of ideas, so dependent upon the distribution of print, cannot be effectively achieved.
- 10. Implicit in the foregoing recommendations is the responsibility placed upon American librarians so to readjust their organization and administration, to restudy and develop their book resources and equipment, and to reorient and inspire their personnel that they will take full advantage of the opportunity which an America of readers holds out before them.



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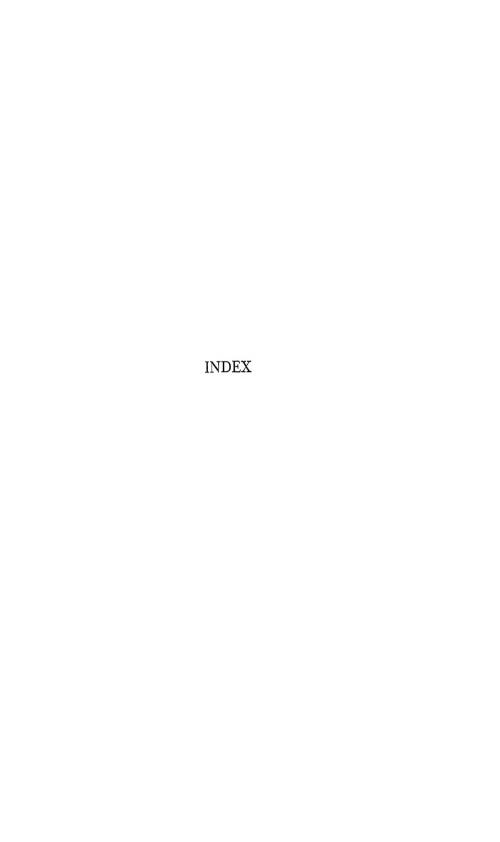
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